

97th Congress }
2d Session }

JOINT COMMITTEE PRINT

THE JAPANESE FINANCIAL SYSTEM
IN COMPARATIVE PERSPECTIVE

A STUDY

PREPARED FOR THE USE OF THE
JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES



MARCH 12, 1982

Printed for the use of the Joint Economic Committee

U.S. GOVERNMENT PRINTING OFFICE

87-359 O

WASHINGTON : 1982

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402

J842-15

JOINT ECONOMIC COMMITTEE

(Created pursuant to sec. 5(a) of Public Law 304, 79th Cong.)

HOUSE OF REPRESENTATIVES

HENRY S. REUSS, Wisconsin, *Chairman*
RICHARD BOLLING, Missouri
LEE H. HAMILTON, Indiana
GILLIS W. LONG, Louisiana
PARREN J. MITCHELL, Maryland
FREDERICK W. RICHMOND, New York
CLARENCE J. BROWN, Ohio
MARGARET M. HECKLER, Massachusetts
JOHN H. ROUSSELOT, California
CHALMERS P. WYLIE, Ohio

SENATE

ROGER W. JEPSEN, Iowa, *Vice Chairman*
WILLIAM V. ROTH, Jr., Delaware
JAMES ABDNOR, South Dakota
STEVEN D. SYMMS, Idaho
PAULA HAWKINS, Florida
MACK MATTINGLY, Georgia
LLOYD BENTSEN, Texas
WILLIAM PROXMIRE, Wisconsin
EDWARD M. KENNEDY, Massachusetts
PAUL S. SARBANES, Maryland

JAMES K. GALBRAITH, *Executive Director*
BRUCE R. BARTLETT, *Deputy Director*

(II)

LETTERS OF TRANSMITTAL

MARCH 10, 1982.

To the Members of the Joint Economic Committee:

Throughout 1981, the Joint Economic Committee has focused on the economic policies of other countries to see what lessons there might be for our own troubled economy. Earlier this year, the committee published a survey of monetary, credit, and industrial policies in several European countries. I am pleased to transmit to you a study that complements our earlier work.

"The Japanese Financial System in Comparative Perspective," authored by Eisuke Sakakibara, Director, Research Division, International Finance Bureau, Japanese Ministry of Finance, Dr. Robert Feldman, Massachusetts Institute of Technology, and Dr. Yuzo Harada, resident fellow, American Enterprise Institute, attempts to assess the contribution that Japanese financial institutions have made to the high rates of investment, savings, and growth that Japan has experienced in the postwar era.

The authors start with the observation that the debt level of nonfinancial corporations in Japan has risen steadily in the postwar era and now exceeds levels found either in the United States or in prewar Japan. At the same time, the debt levels of the Government and individuals have remained below those of their American counterparts. The authors conclude that the high levels of corporate debt are due to the high degree of financial intermediation by banks, thrift institutions, and public financial intermediaries.

Sakakibara and his colleagues found that the Japanese Government played an important role as a financial intermediary. Acting through the Bank of Japan and other public financial institutions, the Government of Japan often socialized the risk associated with potentially profitable investments. The authors stress that the importance of government participation in a loan should not be measured by the size of the loan but by the implicit guarantee that stands behind a particular project.

Although the Government loans did act as a "catalyst to channel large amounts of funds in specific directions," the authors are careful to emphasize that government should not do as it pleased with industry. "Funds could not be channeled to sectors where expected returns were low. Private financial institutions simply would not lend to such sectors even if the Government did assume a substantial portion of the default risk." The contribution of the Government was crucial where "... both expected returns and risks were high ...". The authors conclude that without "... public financial intermediation, basic industries such as energy, steel, shipping, and petrochemicals would not have developed so smoothly."

There were other features of the Japanese financial structure that also contributed to high rates of savings and investment. The

authors conclude that the fierce competition for deposits among thrift institutions, private banks and the governments postal savings system increased the rate of savings. A small public sector relative to GNP, low levels of public debt, and limited use of mortgage or consumer credit all helped direct potential investment funds to the corporate sector.

What emerges from the Sakakibara study is a picture of close and continuous consultation between the private sector on the one hand and the Government of Japan on the other. Credit policy was not used to dictate an economic future but rather to pool risks so that the private sector could rush in where unprotected angels would be unwilling to tread.

We wish to thank the authors for a timely and provocative analysis of the Japanese financial system. Dr. Kent H. Hughes supervised the study for the committee.

It should be understood that the views expressed in the study are exclusively those of the authors and do not necessarily represent the views of the Joint Economic Committee or of individual members.

Sincerely,

HENRY S. REUSS,
Chairman, Joint Economic Committee.

MARCH 8, 1982.

Hon. HENRY S. REUSS,
*Chairman, Joint Economic Committee,
Congress of the United States, Washington, D.C.*

DEAR MR. CHAIRMAN: I am pleased to transmit a study entitled "The Japanese Financial System in Comparative Perspective." The study was prepared by Dr. Eisuke Sakakibara, Dr. Robert Feldman, and Dr. Yuzo Harada. Dr. Sakakibara and his colleagues focus on the role of Japanese financial institutions in fostering Japan's high rate of investment and growth during the post-war period.

The project was supervised for the committee by Dr. Kent H. Hughes.

All the views expressed herein represent those of the authors and do not necessarily reflect the views of the Joint Economic Committee or any of its members.

Sincerely,

JAMES K. GALBRAITH,
Executive Director, Joint Economic Committee.

CONTENTS

	Page
Letters of Transmittal.....	III
THE JAPANESE FINANCIAL SYSTEM IN COMPARATIVE PERSPECTIVE	
Section I.....	1
Section II.....	5
Section III.....	9
A. Continuous Deepening of Debts.....	10
B. The High Degree of Financial Intermediation.....	15
C. Low Public Debts and High Public Financial Intermediation.....	19
D. Low Levels of Consumer Credit.....	22
Summary.....	23
Section IV.....	24
A. Historical Background.....	26
B. Commercial Banking Regulations.....	29
1. Branching.....	30
2. Segmentation.....	31
3. Other Regulations.....	33
C. Investment Banking.....	34
D. The Role of Long-Term Credit Banks in Japan.....	36
Section V.....	39
A. The Government as Intermediary.....	40
B. The Evolution of Monetary Policy.....	48
Summary.....	51
Section VI. Summary and Conclusion.....	53
References.....	56
Appendix. Main Banking Regulations, Comparison of the United States and Japan.....	95

THE JAPANESE FINANCIAL SYSTEM IN COMPARATIVE PERSPECTIVE

By Dr. Eisuke Sakakibara, Dr. Robert Feldman, and
Dr. Yuzo Harada

SECTION I

The conventional view of postwar Japanese financial markets can be summarized simply: financial markets were highly regulated, and authorities, the Ministry of Finance and the Bank of Japan, effectively controlled both the absolute level and allocation of financial resources among firms and individuals.¹ Moreover, this view continues, these financial controls formed the basis for selective industrial policy favoring strategic growth industries; this in turn made it possible for the economy to grow at such a high rate throughout the last 30 years. Thus, direct control by authorities over asset choice by intermediaries is alleged to have generated high growth.

This schema, simple though it may seem, underlay most analysis of postwar Japan, even sophisticated theoretical and empirical analysis. However, few economists believe that direct controls can avoid circumvention for long, so some explanation was needed for why controls in Japan appeared to remain effective. The common explanation was that Japan's controls remained effective because of "peculiarities" of Japanese financial markets. Major alleged peculiarities included: (1) predominance of indirect financing over direct financing; (2) overloan, that is "excessive" indebtedness of banks to the Bank of Japan; (3) overborrowing, that is high dependence of nonfinancial corporations on bank loans; and (4) imbalance of liquidity between city and local banks.²

The conventional view goes on to say that the peculiar characteristics of Japanese financial markets made it easier for monetary authorities to exercise control. In particular, authorities rationed central bank credit at artificially low interest rates. This overloan condition enabled the Bank of Japan to monitor the banks, through various policy instruments and administrative guidance. Since interest rates on supply of credit to firms always were set lower than equilibrium rates, there was always excess demand for credit. This excess demand, coupled with dominance of indirect financing, in turn made it possible for banks to control both the level and distribution of investment. Thus, investment was determined by monetary policy.

¹ As an example of this line of argument, the reader is referred to H. C. Wallich and M. I. Wallich, "Banking and Finance" in H. Patrick and H. Rosovsky (ed.), *Asia's New Giant: How the Japanese Economy Works*, Brookings Institution, 1976.

² Yoshio Suzuki, *Money and Banking in Contemporary Japan*, Yale University Press, New Haven and London, 1980.

A very simple Keynesian framework was then invoked to move from investment to GNP. In other words, exogenous investment increased production and, in turn, generated savings that exactly matched this level of investment. Thus, monetary authorities also determined the static level of GNP.

The conventional view also has a major role for monetary policy in the dynamics of the economy, i.e., growth. Credit rationing enabled selective allocation of financial resources to strategic industries, which, in turn, contributed to the rapid improvement of productivity and competitiveness in industries such as steel, automobiles, petrochemicals, and computers. The ultimate explanation for the high rate of growth of real GNP, the high savings rate, and rapid improvement in productivity and competitiveness was alleged to be financial control made possible by "peculiar" Japanese financial markets.

The theory outlined above is logical and internally consistent. But it is also an economic version of the proposition that the postwar Japanese economy was orchestrated and controlled by a coalition of conservative politicians, bureaucrats and big business.³ Overtones of Japan, Inc., enter what should be a more analytical debate about financial structure. Elitist led Japan, Inc., it is claimed, relied very heavily on financial controls in implementing a highly growth oriented policy.

In recent years, a fairly large amount of political science literature has mushroomed criticizing the crudeness and over simplification of the elitist view of Japan, Inc., and offered an alternative pluralist interpretation.⁴ Indeed, the Japanese decisionmaking process is not as monolithic as it first appears, and the power is more widely diffused than depicted in the Japan, Inc., view. The dispute between the elitist and pluralist interpretations seems, however, somewhat futile since neither perspective offers sufficient generalization of the Japanese decisionmaking process.

The debate closely parallels that in the economics literature on markets versus controls. American economists or so called "modern" economists in Japan in particular usually emphasize the market interpretation, while some Japanese emphasize controls. It is most ironic that the usual roles are reversed in the discussion of Japanese finance. Emphasis on markets is not consistent with the conventional view, often espoused by "modern" economists, of postwar Japanese financial policy and markets.⁵ On the other hand, despite all the talk of strict regulations of financial markets, Japanese practitioners have always regarded Japan's deposit and loan markets as highly competitive, often "excessively" competitive. Their observations, although not framed in any consistent analytical model, must give pause to those who adhere to the conventional view.

All this confusion, both theoretical and empirical, suggests that the conceptual framework that contrasts markets with controls, or elitism with pluralism, may not be a useful one for analysis of the

³ See for example, Eugene Kaplan, *Japan—The Government and Business Relationship*, U.S. Department of Commerce, February 1972. Chalmers Johnson, *Japan's Public Policy Companies*, American Enterprise Institute, Washington, D.C., 1978.

⁴ For a good survey of literature see, H. Fukui, "Studies in Policy Making: A Review of the Literature", T. J. Pempel (ed.) *Policy Making in Contemporary Japan*, Cornell University Press, 1977.

⁵ A typical example of this type of view is presented in H. Patrick and H. Rosovsky, eds. *Asia's New Giant: How the Japanese Economy Works*, Brookings Institution, 1976. Policies of the 1980's.

Japanese financial system. Instead, this essay attempts to treat the Japanese financial market as an institution with a job to do, financial intermediation. We classify the characteristics of financial markets not as "peculiar" or "advanced," but rather as encouraging or discouraging to intermediation. The distinction may seem semantic, but we feel our framework more useful in functional analysis of financial systems. We leave the decision of what is "peculiar" and what "advanced" to the Hegelians.

Moreover, the predominantly negative tone which has prevailed in most literature on Japanese financial markets is hard to reconcile with the view of relative success in real growth. Indeed, proponents of the conventional view are in the difficult position of having to choose among four unattractive ways of reconciling control with high growth: (1) that controls in Japan were ineffective; (2) that growth would have been even faster without controls; (3) that controls in general are more efficient than markets; or (4) that success achieved through devious means is no success at all.

We are not suggesting that the current Japanese financial system is optimal and reforms are not necessary. We merely suggest that those vested with the burden of deciding about reforms consider the alternatives with an eye to how reforms will affect the degree and efficiency of intermediation, not to how closely they conform to ideology.

With this perspective as background, this essay places primary emphasis on the interaction between financial markets and the nonfinancial economy, and on how financial markets respond to the needs of nonfinancial sectors of the economy. In particular, we compare Japanese patterns to those of the United States and how the differences in structures of financial markets affect relative performance. The evolution of the two countries' financial systems is also of interest in identifying convergence or divergence. Increasing internationalization is a factor promoting convergence, but there is no a priori reason to expect internationalization to dominate market evolution.

The role of government is also a primary focus of this essay. Because of the requirements of fiduciary monetary systems, the role of government is critical in determining the structural characteristics of markets, even under control-free regimes. Analysis of the role of government from the viewpoint of encouraging or discouraging intermediation is essential.

Section II sets the background for subsequent analysis by briefly summarizing major characteristics of the postwar Japanese economy in comparison to both prewar Japan and the postwar United States. Section III, relying primarily on flow of funds data, examines in detail evolution of postwar financial structure in relation to the real sector of the economy. Major differences with the United States are identified, and convergence is investigated. Section IV provides detailed comparison of legal structures that underlie these differences. Particular attention is paid to the relative position of commercial versus investment banking in the two countries, and to how differences in regulations have brought different structures to markets. Section V examines differences and changes in the gov-

ernmental roles in the two countries. Direct and indirect roles that government plays in financial intermediation are very important parts of government policies, but have not been included in conventional analysis of fiscal and monetary policies. Throughout the postwar period, this has constituted an integral part of Japanese financial policy, while the same role has become substantially larger in the United States. The section also attempts to assess and evaluate the conduct of monetary and financial policies in Japan during the postwar period.

The final section summarizes principal conclusions of this essay, and investigates implications for Japanese financial policies of the 1980's.

SECTION II

One can approach the postwar Japanese economy from various angles. But the interest here is in the interrelationships among macro-economic performance, structure of financial markets, and conduct of financial policies. In this section, we briefly describe characteristics of the real sector of the Japanese economy from this perspective.

First and most striking is the real rate of growth of Japanese GNP. During the postwar period growth was not only high compared to other countries, but also accelerated above its historical trend level. This is what Ohkawa and Rosovsky call "trend acceleration" in the 20th century Japanese economy.¹ As can be seen from Table I, the prewar level of the Japanese growth rate since the early 20th century had been high, but a distinct jump occurred in the late 1930's and continued in the postwar period. Before this jump, the growth rate had been high but had not been drastically different from those of the United States and Germany in the late 19th and early 20th century. Such surges in growth rate are common to late starters in industrial revolutions.

But in Japan, the surge in the growth rate not only persisted, but accelerated, even into the early seventies. Indeed, one can ascribe the initial jump to abnormal war preparation efforts of the late thirties and early forties and its continuation up to the late fifties to recovery from the war rampaged economy of 1945. But why did acceleration continue? This is a major puzzle in scholarship on the 20th century Japanese economy.

The fact that this phase of acceleration started in the thirties leads us to suspect that the structural changes made in the economy then, and modified during the Occupation, may have been conducive to acceleration. For example, the basic foundation of current Japanese financial markets was laid during the 1930's. The reforms of the Occupation were quite drastic in many areas, but did not have much impact on financial markets. Indeed, Zaibatsu dissolution and the de facto confiscation of equity actually accelerated the already conspicuous trend from direct to indirect financing, and strengthened the hands of both financial authorities and banks.² It is only conjecture at this stage, but such structural changes may have stimulated trend acceleration in the real growth rate.

The second critical fact on the postwar Japanese economy concerns the savings ratio. Table II shows the ratio of gross savings to GNP

¹ Kazushi Ohkawa and Henry Rosovsky, *Japanese Economic Growth: Trend Acceleration in the Twentieth Century*, Stanford University Press, 1973.

² E. Hadley notes as follows: "The mission (Edwards mission) proposals in finance were curiously weak; somehow it never came to grips with a key element of the issue, the integral union of commercial banking with industrial and commercial undertakings." Eleanor M. Hadley, *Antitrust in Japan*, Princeton University Press, 1970. However, the authors of this paper feel that there is nothing curious about this exception. First, banks had been considered exempt from antitrust regulations in the United States up to the 1960's. Second, U.S. Occupation Forces were considering overall restructure of Japanese financial markets separately from antitrust regulations although such restructuring did not materialize because of the change in policies after 1948.

for some major nations. The savings include not only those of individuals, but also those of corporations and governments. The pattern observed in Table II is quite similar to that of Table I. Japan's savings ratio was high even before the thirties, but was still comparable to those of the United States and Germany. But a major upward shift occurred in the thirties, and acceleration of the savings ratio continued until the early 1970's. Again, the issue is not merely the high level of the savings ratio, but its continuous rise.

TABLE I.—REAL GNP GROWTH

	Japan	United States	Germany ¹	United Kingdom
1870 to 1913	2.4	4.6	2.7	2.1
1913 to 1930	3.9	1.1	1.8	.7
1931 to 1937	5.7	3.1	8.5	3.1
1938 to 1956	1.8	4.8		1.9
1957 to 1962	9.4	3.2	5.5	3.1
1963 to 1969	10.3	4.4	4.9	2.9
1970 to 1974	6.0	3.0	2.9	2.7
1975 to 1979	5.8	4.4	4.0	2.3

¹ German Empire for 1870-1938, West Germany for 1957-79. Data for 1938-56 not calculable due to redefinition of national boundaries.

Sources:

1870-1913, 1913-38: Nakamura Takafusa, "The Japanese Economy, Growth and Structure" (in Japanese), Tokyo University Press, 1978, p. 12.

1938-56, for United Kingdom: Mitchell, B. R., "European Historical Statistics," for United States: U.S. Department of Commerce, "Historical Statistics of the United States," p. F. 31; for Japan: Ohkawa and Shinohara, "Patterns of Japanese Economic Development," Yale University Press, 1980, tables A2, A50, and A57.

1957-79: IMF, "International Financial Statistics," May 1, 1977 and December 1, 1980, various country tables.

TABLE II.—RATIO OF GROSS SAVING TO GNP

	Japan	United States	Germany ¹
1905 to 1917	19.0	16.6	² 15.2
1918 to 1931	18.1	15.4	³ 7.6
1932 to 1937	17.9	6.4	7.3
1938 to 1957	27.0	12.8	
1958 to 1962	33.6	15.2	25.9
1963 to 1969	36.5	16.2	26.4
1970 to 1974	37.3	15.8	26.2
1975 to 1979	30.5	15.7	22.3

¹ Capital formation as percent of GNP.

² 1905-13.

³ 1925-31.

Sources:

Japan: 1905-31, Ohkawa and Shinohara, "Patterns of Japanese Economic Development," Yale University Press, 1980. Savings: table A-5 series B. GNP table A-1. 1932-69, *Ibid.* Savings table A6. GNP table A-1. 1970-79, Bank of Japan, "International Comparative Statistics" (in Japanese), 1980.

United States: 1905-37, U.S. Department of Commerce, "Long-Term Economic Growth: Gross saving derived through regressing BEA series (p. 227) on Goldsmith series, then projecting BEA series backwards to 1905. Pre-1909 GNP data obtained by regressing BEA's series on Kendrick series, then projecting backward. 1938-79, "Economic Report of the President 1980," tables B23 (p. 260) and B-1 (p. 233).

Germany: 1905-37, Mitchell, B. R., "European Historical Statistics," p. 785. 1958-79, IMF, International Financial Statistics, May 1977 and February 1981. Data listed are gross fixed capital formation plus increase in stocks as percent of GNP.

The savings ratio is, of course, a critical part of any macroeconomic model. But most such models postulate savings as a function only of wealth, income, and the rate of interest. Such abstraction may be justified if financial markets are perfectly competitive, and if

individuals and corporations can borrow and lend unlimited amounts at the market interest rate. It is within this abstract framework that previous research attributed Japan's high saving to the higher rate of growth of income, the low asset-income ratio, and some institutional characteristics such as the bonus system.³ Conventional macro models of Japan normally ignored the structure of financial intermediation as a determinant of the savings rate.

But in the real world, market structure, imperfect information and uncertainty play crucial roles.⁴ In some wholesale markets, such as those for Treasury bills, Eurodollar deposits, or Federal funds, the assumption of perfect competition may be reasonable. But obviously this does not carry over to retail markets for bank deposits and bank loans, which occupy central roles in the Japanese financial markets. Given imperfections and uncertainty, government policies and the structure of the financial intermediation may well affect the overall level and sectoral distribution of savings.⁵

Aforementioned evolution of financial structure toward more indirect financing happened to coincide with the acceleration in savings ratio. The relationship may very well be accidental, and certainly does not in itself prove any causal relationship. However, it can at least be said that the evidence does not contradict the hypothesis that postwar financial structure contributed to the rise of the savings ratio.

The third critical characteristic of the postwar Japanese economy is the share of government in overall economic activity. The majority of foreign analysts believe there was substantial government role in many sectors, but in fact both the level of aggregate government spending and tax revenue as a proportion of GNP have been considerably lower than in other developed countries during the postwar period. Although the Government share has increased somewhat in recent years, it still remained at 30.5 percent in 1978 as compared to 34.0 percent of the United States and 43.9 percent of the United Kingdom in 1977.

As can be seen from Table III, the reason for lower ratio lies in government consumption. Government consumption in recent years has been lower primarily because of low defense expenditures and a much smaller number of government employees. Japanese defense expenditure in 1979 was 0.95 percent of GNP, compared to 5.05 percent for the United States. Also, the total number of government employees (central, local, and public corporations) per 1,000 population in 1976 were 92 and 196 respectively in Japan and the United States, excluding military personnel. (The numbers are 98 and 205 respectively including military personnel.)

³ See, for example, R. Komiya, "The Supply of Personal Savings," R. Komiya (ed.) *Post-war Economic Growth in Japan*, University of California Press, 1968.

⁴ See, for example, D. Jaffe and T. Russell, "Imperfect Information, Uncertainty and Credit Rationing," *Quarterly Journal of Economics*, Nov. 1976. E. Balstenperger, "Credit Rationing: Issues and Questions," *Journal of Money, Credit and Banking*, May 1978.

⁵ As an example of such a model, see, for example, E. Sakakibara, "A Simple Macro-Economic Model with Financial Intermediation" (mimeo), April 1981.

TABLE III.—GOVERNMENT EXPENDITURE IN GNP
[Ratio of expenditures of GNP]

	Year	Government consumption	Social security transfers	Government investment	Interest payments	Total	
I. INTERNATIONAL COMPARISON ¹							
Japan.....	1978	9.6	9.6	6.3	5.0	30.5	
United States.....	1977	18.3	10.9	1.6	3.3	34.0	
Germany.....	1977	20.0	16.1	3.2	5.4	44.6	
United Kingdom.....	1977	20.8	11.2	3.5	8.5	43.9	
II. JAPANESE HISTORICAL SERIES ²							
		Government consumption	Current transfers	Current subsidies	Transfers to World	Capital expenditures	Total
1901.....		9.8	1.0	0.4	0	3.7	14.8
1931.....		14.6	1.5	0	0	5.3	21.5
1937.....		20.7	1.4	0	0	3.8	25.8
1962.....		9.2	3.9	.5	.2	10.0	23.7
1970.....		8.5	4.5	1.2	.1	8.7	22.9

¹ Source: "Fact Book on Public Finance (Saishutsu Hyakka)" (in Japanese), Ministry of Finance, July 1980.

² Source: Ohkawa and Shinohara, op. cit., tables A44, A1, A2.

On the other hand, Japan shows a much higher ratio of government investment to GNP than any other advanced country. In 1978, the ratio of government gross capital formation to GNP was 6.3 percent as compared to 1.6 percent in the United States in 1977. Indeed, though the Japanese Government has maintained the principle of small government on the consumption side, public savings and investment levels far surpassed those of other advanced countries.

The role of government in the process of Japanese growth has been the subject of much controversy.⁶ Most debate has revolved around the effectiveness of government control and the sheer size of government. But there is another role the Government plays, one quite different and at times highly critical, that of financial intermediary. This aspect of government significance stems not from outright control nor from overall size, but rather from socializing risks, coordinating private interests, and processing information. The perception of Japan's Government as "small" in size but entrepreneurial in spirit seems consistent with Table III's facts.

To summarize, the three major aspects of the postwar Japanese economy that we emphasize in the context of their interactions with financial markets and policies are: (1) high and accelerating rate of growth of real GNP; (2) high and rising savings ratio; and (3) a frugal, investment-prone, intermediation-oriented government sector.

⁶ Phillip Trezise, "Politics, Government and Economic Growth in Japan," in *Asia's New Giant: How the Japanese Economy Works*, Brookings Institution, 1976. Ezra Vogel, "Guided Free Enterprise in Japan," *Harvard Business Review*, May-June 1978.

SECTION III

As pointed out in the introduction, the Japanese financial structure has been considered to possess at least four distinctive "peculiarities," namely: (1) overloan; (2) over borrowing; (3) predominance of indirect financing; and (4) imbalance of bank liquidity.¹ There are two fundamental problems with this characterization. The first, already mentioned, is that this framework reflects a value judgment that the Anglo-Saxon structure is "advanced." Indeed, a strong negative overtone exists in most writings on Japanese financial structure. Moreover, this framework ignores important characteristics of postwar Japanese financial structure which are relevant in analyzing the interaction of financial structure and real-sector performance.

Second, there have typically been ambiguities about equity financing in the prewar period. Most equities in that era were privately placed with holding companies, affiliated corporations, or wealthy individuals closely tied to the issuing corporations.² There were some noticeable public offerings in the 1930's, but their role was complementary rather than primary. Depending upon whether one classifies private placement as direct or indirect, drastically different pictures of the history of corporate financing emerge. If privately placed equities are considered direct financing, it can be argued that direct financing was thriving in the early 20th century, until wartime restrictions were imposed. According to this view, predominance of indirect financing was an aberration from the natural historical trend. Had it not been for these controls, it is argued, full fledged capital markets a la Anglo-Saxon norms would have developed much earlier. On the other hand, Suzuki has maintained that "the predominance of indirect financing has been an unbroken phenomenon since Meiji era,"³ an assertion based on data that presumably exclude privately placed equity from direct financing.

Indeed, it is only natural that characterizations of institutions differ according to methods of classifying facts. But when a classification scheme acquires overtones of ideology or normative judgments, its usefulness in positive analysis suffers. This paper seeks to avoid this pitfall by returning to first principles.

Following B. Friedman,⁴ we first separate the economy into financial and nonfinancial sectors. Then we examine directly changes in the liability issuing and asset holding behavior of the economy's various nonfinancial sectors. Also, we review the evolution of postwar Japanese financial structure in comparison with that of the United States. Particular emphasis is placed on how financial structure relates

¹ See, for example, Y. Suzuki, op. cit.

² See, for example, K. Shimura, *Analysis of the Japanese Capital Market* (in Japanese), Tokyo University Press, 1969.

³ Y. Suzuki, op. cit., p. 22. Also, see T. Yoshino, *Japanese Financial Institutions of Policies* (in Japanese), Shisei-do, 1954.

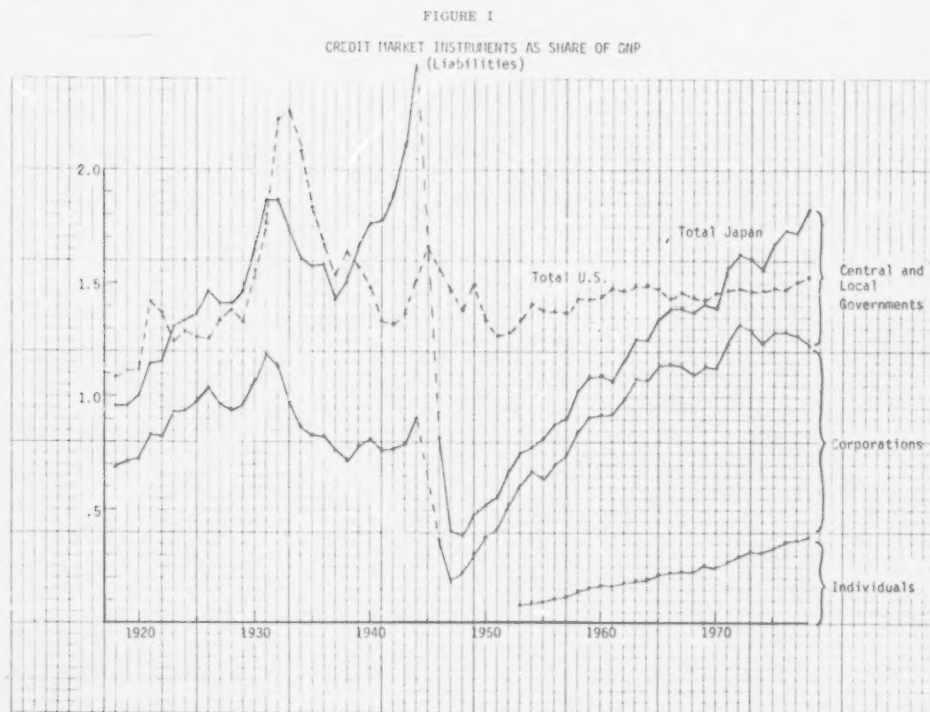
⁴ B. Friedman, "Postwar Changes in the American Financial Markets," M. Feidstein (ed.), *The American Economy in Transition*, Chicago University Press, February 1981.

to the three distinctive characteristics of the real economy enumerated in the previous section. In doing so, we identify our own set of four major characteristics of postwar Japanese financial markets.

A. CONTINUOUS DEEPENING OF DEBTS

One distinctive development of the Japanese financial markets since World War II has been the rapid, continuing rise in financial debt of nonfinancial sectors. The ratio of financial debt of nonfinancial sectors to total GNP has continuously increased, surpassing both the Japanese prewar levels and U.S. postwar levels. Unlike the U.S. case, for which B. Friedman found long-run stability of this ratio,⁵ the postwar Japanese figure shows an upward trend, although a decelerating one.

Figure I and Table IV indicate the general dimension of the postwar changes on the liability side. The figure and table show overall total outstanding credit market debt issued by the economy's nonfinancial borrowers as defined by the U.S. flow of funds data, and scaled as a percentage of gross national product. The figure and table also show respective components of this total debt ratio according to major categories of nonfinancial borrowers in the economy: the central government, local government, incorporated business, and individuals.⁶



⁵ B. Friedman, *op. cit.*

⁶ This category includes both unincorporated business and households. Japanese flow of funds data does not provide separate estimates of household and unincorporated business. U.S. data are adjusted accordingly.

TABLE IV.—CREDIT MARKET INSTRUMENTS AS SHARE OF TOTAL GNP (LIABILITIES)

Year	Japan	United States	Year	Japan	United States
NONFINANCIAL SECTOR TOTAL					
1910	1.148		1945	(1)	1.659
1911	1.101		1946	0.813	1.560
1912	1.133		1947	.409	1.457
1913	1.141		1948	.391	1.384
1914	1.291		1949	.477	1.496
1915	1.276		1950	.523	1.334
1916	1.164		1951	.552	1.269
1917	1.032		1952	.682	1.281
1918	.954	1.042	1953	.750	1.333
1919	.957	1.060	1954	.778	1.405
1920	1.002	1.070	1955	.812	1.385
1921	1.146	1.420	1956	.878	1.380
1922	1.151	1.368	1957	.901	1.370
1923	1.308	1.247	1958	1.028	1.435
1924	1.329	1.280	1959	1.092	1.432
1925	1.363	1.256	1960	1.097	1.441
1926	1.462	1.254	1961	1.070	1.479
1927	1.414	1.341	1962	1.158	1.466
1928	1.419	1.379	1963	1.251	1.489
1929	1.468	1.332	1964	1.250	1.490
1930	1.649	1.525	1965	1.347	1.478
1931	1.861	1.758	1966	1.385	1.436
1932	1.871	2.222	1967	1.389	1.454
1933	1.736	2.255	1968	1.366	1.441
1934	1.615	2.088	1969	1.408	1.428
1935	1.578	1.845	1970	1.391	1.451
1936	1.583	1.674	1971	1.511	1.473
1937	1.479	1.546	1972	1.635	1.480
1938	1.501	1.644	1973	1.606	1.468
1939	1.665	1.563	1974	1.566	1.472
1940	1.705	1.488	1975	1.677	1.486
1941	1.785	1.337	1976	1.743	1.479
1942	1.896	1.324	1977	1.721	1.503
1943	2.108	1.366	1978	1.821	1.527
1944	2.455	1.510			
CENTRAL GOVERNMENT					
1910	0.648		1945	(1)	1.187
1911	.566		1946	0.430	1.035
1912	.525		1947	.195	.906
1913	.496		1948	.151	.810
1914	.537		1949	.151	.849
1915	.506		1950	.116	.708
1916	.406		1951	.102	.638
1917	.318		1952	.114	.616
1918	.231	0.274	1953	.077	.618
1919	.215	.305	1954	.087	.624
1920	.244	.259	1955	.091	.574
1921	.274	.332	1956	.085	.531
1922	.278	.308	1957	.060	.501
1923	.316	.256	1958	.074	.513
1924	.314	.248	1959	.077	.490
1925	.307	.218	1960	.067	.466
1926	.322	.198	1961	.041	.464
1927	.334	.192	1962	.041	.442
1928	.353	.180	1963	.041	.426
1929	.367	.160	1964	.043	.407
1930	.417	.182	1965	.052	.378
1931	.478	.243	1966	.071	.348
1932	.538	.365	1967	.083	.341
1933	.567	.436	1968	.090	.326
1934	.564	.466	1969	.092	.301
1935	.561	.475	1970	.086	.300
1936	.568	.456	1971	.089	.302
1937	.560	.432	1972	.113	.288
1938	.637	.477	1973	.101	.265
1939	.748	.469	1974	.105	.253
1940	.844	.448	1975	.140	.290
1941	.928	.451	1976	.184	.302
1942	1.048	.642	1977	.201	.302
1943	1.248	.804	1978	.294	.296
1944	1.470	1.007			

See footnotes at end of table.

TABLE IV.—CREDIT MARKET INSTRUMENTS AS SHARE OF TOTAL GNP (LIABILITIES)—Continued

Year	Japan	United States	Year	Japan	United States
NONFINANCIAL SECTOR TOTAL					
LOCAL AUTHORITIES					
1910.....	0.045	.....	1945.....	(1)	0.072
1911.....	.063	.....	1946.....	0.016	.070
1912.....	.062	.....	1947.....	.016	.069
1913.....	.061	.....	1948.....	.015	.072
1914.....	.070	.....	1949.....	.021	.074
1915.....	.068	.....	1950.....	.028	.082
1916.....	.056	.....	1951.....	.031	.081
1917.....	.044	.....	1952.....	.041	.087
1918.....	.033	0.067	1953.....	.065	.096
1919.....	.028	.066	1954.....	.077	.112
1920.....	.033	.068	1955.....	.087	.116
1921.....	.044	.100	1956.....	.095	.119
1922.....	.050	.101	1957.....	.092	.123
1923.....	.062	.101	1958.....	.106	.134
1924.....	.072	.111	1959.....	.108	.137
1925.....	.078	.111	1960.....	.106	.142
1926.....	.094	.114	1961.....	.104	.148
1927.....	.113	.123	1962.....	.120	.148
1928.....	.124	.131	1963.....	.130	.150
1929.....	.135	.132	1964.....	.137	.150
1930.....	.161	.162	1965.....	.157	.150
1931.....	.189	.210	1966.....	.171	.146
1932.....	.199	.285	1967.....	.174	.148
1933.....	.193	.292	1968.....	.176	.147
1934.....	.184	.244	1969.....	.178	.147
1935.....	.184	.222	1970.....	.178	.152
1936.....	.188	.196	1971.....	.191	.157
1937.....	.161	.178	1972.....	.203	.155
1938.....	.141	.189	1973.....	.209	.148
1939.....	.129	.181	1974.....	.222	.148
1940.....	.113	.164	1975.....	.252	.146
1941.....	.093	.129	1976.....	.271	.140
1942.....	.080	.097	1977.....	.249	.137
1943.....	.070	.076	1978.....	.302	.134
1944.....	.067	.066			
CORPORATIONS ¹					
1910.....	0.455	.....	1945.....	(1)	0.266
1911.....	.472	.....	1946.....	0.367	.294
1912.....	.546	.....	1947.....	.198	.303
1913.....	.584	.....	1948.....	.225	.306
1914.....	.684	.....	1949.....	.305	.328
1915.....	.702	.....	1950.....	.379	.307
1916.....	.702	.....	1951.....	.418	.309
1917.....	.670	.....	1952.....	.527	.317
1918.....	.690	0.587	1953.....	.527	.278
1919.....	.714	.591	1954.....	.579	.293
1920.....	.725	.639	1955.....	.536	.294
1921.....	.828	.841	1956.....	.586	.306
1922.....	.823	.809	1957.....	.628	.315
1923.....	.930	.740	1958.....	.706	.332
1924.....	.943	.751	1959.....	.751	.332
1925.....	.978	.749	1960.....	.758	.341
1926.....	1.046	.750	1961.....	.762	.352
1927.....	.967	.812	1962.....	.813	.353
1928.....	.942	.831	1963.....	.888	.361
1929.....	.966	.797	1964.....	.874	.362
1930.....	1.071	.913	1965.....	.926	.370
1931.....	1.194	1.009	1966.....	.917	.373
1932.....	1.134	1.232	1967.....	.900	.390
1933.....	.976	1.195	1968.....	.869	.394
1934.....	.867	1.087	1969.....	.885	.405
1935.....	.833	.873	1970.....	.879	.422
1936.....	.827	.768	1971.....	.961	.425
1937.....	.758	.698	1972.....	1.022	.431
1938.....	.723	.726	1973.....	.976	.443
1939.....	.788	.669	1974.....	.922	.466
1940.....	.808	.628	1975.....	.948	.457
1941.....	.764	.544	1976.....	.935	.445
1942.....	.768	.438	1977.....	.909	.449
1943.....	.790	.372	1978.....	.848	.462
1944.....	.918	.332			

See footnotes at end of table.

TABLE IV.—CREDIT MARKET INSTRUMENTS AS SHARE OF TOTAL GNP (LIABILITIES)—Continued

Year	Japan	United States	Year	Japan	United States
NONFINANCIAL SECTOR TOTAL					
INDIVIDUALS					
1910.....			1945.....		0.134
1911.....			1946.....		.161
1912.....			1947.....		.179
1913.....			1948.....		.196
1914.....			1949.....		.235
1915.....			1950.....		.237
1916.....			1951.....		.241
1917.....			1952.....		.261
1918.....		0.114	1953.....	0.081	.341
1919.....		.098	1954.....	.095	.376
1920.....		.104	1955.....	.098	.401
1921.....		.147	1956.....	.112	.424
1922.....		.150	1957.....	.121	.431
1923.....		.150	1958.....	.142	.456
1924.....		.170	1959.....	.156	.473
1925.....		.138	1960.....	.166	.492
1926.....		.192	1961.....	.163	.515
1927.....		.214	1962.....	.184	.523
1928.....		.237	1963.....	.192	.552
1929.....		.243	1964.....	.196	.571
1930.....		.268	1965.....	.212	.580
1931.....		.296	1966.....	.226	.569
1932.....		.340	1967.....	.232	.575
1933.....		.332	1968.....	.231	.574
1934.....		.291	1969.....	.253	.575
1935.....		.275	1970.....	.248	.577
1936.....		.234	1971.....	.270	.589
1937.....		.238	1972.....	.297	.606
1938.....		.252	1973.....	.320	.612
1939.....		.250	1974.....	.317	.605
1940.....		.248	1975.....	.337	.593
1941.....		.213	1976.....	.353	.592
1942.....		.147	1977.....	.362	.615
1943.....		.114	1978.....	.377	.635
1944.....		.105			

¹ Not available.

² From 1910-52, shares of corporations and individuals were combined for Japanese data.

Notes: (1) 1953-78 data derived from flow of funds, Bank of Japan and Federal Reserve flow of funds account. (2) 1910-52 data for Japan derived from "Historical Statistics of Japanese Economy," Bank of Japan, 1962. Liabilities of corporations and individuals are the sum of industrial debentures and loans and discounts of financial institutions. (3) 1918-52 data for United States are from B. Friedman, "Postwar Changes in the American Financial Markets," M. Feldstein (ed.), "The American Economy in Transition," Chicago University Press, February 1981.

This rapid rise in debt ratio can be explained, at least partially, by wartime dislocation and rampant postwar inflation that wiped out most financial assets and liabilities. The accelerating accumulation of debts in the initial phase of reconstruction could be viewed as restoration of normal debt-income levels. The debt/income ratio reached the prewar level by late sixties, but⁷ then continued to rise throughout the sixties and seventies, albeit at a reduced rate. Moreover, the ratio in Japan at the end of the seventies seems substantially higher than that of the United States. Thus, the Japanese nonfinancial sector today is much more deeply in debt than its prewar counterpart, or even the postwar United States. It is not clear from the data whether the process of debt deepening has stabilized, but it

⁷ As in the case of the United States, the prewar debt ratio was abnormally high around the 1930's. This is presumably an effect of worldwide depression which lowered income and raised the proportion of bad debts. Also, the ratio rose very rapidly between 1939 and 1944. This bulge was due to rapid increase in national debt caused by World War II. Accordingly, we regard the periods 1930-34 and 1939-44 abnormal observations. The period 1935-38 seems to have been affected by these two abnormal periods.

seems plausible to assume that no substantial further rise is in sight, in view of the recent deceleration in the process.

A natural counterpart of this debt deepening is the accumulation of financial assets by the nonfinancial sector. In Table V, one aspect of such accumulation of the financial assets is shown, the ratios of M_1 and M_2 to GNP. M_2 here includes postal savings deposits, which are only a part of M_3 in the Bank of Japan's classification system. The ratio is often called Marshallian K, or reciprocal of velocity, and is usually assumed in monetary theory to be relatively stable. The Marshallian K for M_2 is indeed stable in the United States, but shows a strong upward trend in Japan, reflecting rapid accumulation of financial assets in the latter. Since M_2 constitutes approximately 65 percent of all financial assets (excluding trade credit) of the non-financial sector in Japan throughout the postwar period, it is only natural that the moves in M_2 /GNP are similar to those of debt ratio in Table IV. Although the upward trend in M_1 /GNP is somewhat less, the trend is still discernible. Table V casts doubt about the stability of asset demand for money in Japan. Transactions demand seems more stable, since the currency/GNP ratio is more stable. This relationship is consistent with the Japanese practice of using currency in majority of transactions among individuals. Except for a very small minority of cases, Japanese households do not open checkable accounts with financial institutions, and the bulk of M_1 is interest-bearing, noncheckable demand deposits.

TABLE V.—MARSHALLIAN K FOR CURRENCY, M_1 AND M_2

Year	Currency/GNP		M_1 /GNP		M_2 /GNP	
	Japan	United States	Japan	United States	Japan	United States
1953	0.091	0.076	0.309	0.374	0.585	0.623
1954	.081	.075	.286	.384	.598	.657
1955	.081	.070	.300	.360	.647	.634
1956	.084	.067	.317	.344	.702	.626
1957	.078	.064	.295	.325	.708	.620
1958	.081	.064	.318	.334	.802	.660
1959	.084	.059	.334	.312	.858	.635
1960	.084	.057	.334	.304	.880	.644
1961	.081	.057	.325	.303	.833	.671
1962	.086	.054	.344	.290	.902	.681
1963	.088	.055	.394	.283	.984	.701
1964	.084	.054	.379	.277	.972	.714
1965	.084	.053	.385	.266	1.002	.717
1966	.083	.051	.396	.248	1.050	.687
1967	.083	.051	.382	.254	1.036	.718
1968	.083	.050	.371	.248	1.018	.719
1969	.085	.049	.386	.239	1.058	.668
1970	.083	.050	.374	.240	1.037	.705
1971	.086	.049	.423	.238	1.145	.744
1972	.097	.049	.457	.235	1.249	.720
1973	.096	.047	.450	.221	1.218	.757
1974	.093	.048	.419	.208	1.155	.753
1975	.092	.048	.422	.202	1.229	.764
1976	.090	.047	.423	.194	1.249	.765
1977	.089	.047	.412	.189	1.271	.769
1978	.076	.046	.386	.183	1.230	.762

Sources: Flow of funds data from Bank of Japan and the Federal Reserve System; Bank of Japan "Economic Statistics Annual" for GNP of Japan; United States Economic Report of the President for United States GNP and currency outstanding.

Both demand and time deposits in Japan, therefore, should be treated not as money in the usual sense, but as nonnegotiable security of a kind. This type of environment makes it very difficult to apply

a conventional monetary theory framework, which assumes perfectly liquid money and negotiable but less liquid market securities as the major financial assets.

B. THE HIGH DEGREE OF FINANCIAL INTERMEDIATION

As has been noted by many analysts, the predominance of indirect financing constitutes a basic characteristic of the postwar financial system. This is true regardless of the liability classification scheme chosen. The effects of liability classification/methodology on the characterization of prewar Japanese financial markets were discussed above. But classification scheme differences can also generate ambiguity in characterizing the postwar U.S. financial market.⁸ Kuroda has pointed out that the different classification of privately placed bonds purchased by financial intermediaries changes the conventional picture of sharp contrast between U.S. and Japanese patterns of direct versus indirect financing. If one includes privately placed bonds and bonds purchased by financial intermediaries as a part of indirect financing, and also adjusts properly for differences in accounting methods between the two countries, the proportions of indirect financing in the two countries are not that much different. The results of Kuroda's calculations are reconstructed in Table I.⁹

TABLE VI.—INDIRECT FINANCING OF CORPORATIONS, BY THE STANDARD METHOD (I) AND BY A MORE ACCURATE METHOD (II)

[Percent of noncapital account financing]

	Method I: All bonds as direct finance		Method II: Bonds held by financial institutions as indirect	
	Japan	United States	Japan	United States
Total, indirect finance	44.3	16.8	46.7	41.2
Short-term borrowing	(20.6)	(6.3)	(20.6)	(6.3)
Long-term borrowing ¹ (bonds held by financial organs)	(23.7)	(10.5)	(23.7)	(10.5)
			2.4	24.5
Bonds:				
I. Total	5.0	31.2		
II. Held by nonfinancial sector			2.7	6.7
Other	50.7	52.0	50.7	52.0
Total	² 100.0	³ 100.0	² 100.0	³ 100.0

¹ Includes government borrowing for the United States.

² ¥55.4 trillion.

³ \$407.8 billion

Notes: (1) Coverage: Japan: 559 firms of the 1st section of the Tokyo Stock Exchange. United States: 11,121 manufacturing firms. (2) Original sources: Japan: Tokyo Stock Exchange, "Shoken," 1977, November volume. United States: FTC "Quarterly Financial Report".

Source: Kuroda, Iwao, "About Japanese Financial Structure" (in Japanese) "Securities Markets in the 1980's."

⁸ I. Kuroda and Y. Oritani, "Re-examination of 'Peculiarities' of Japanese Financial Structure—Comparison of Balance Sheets of U.S. versus Japanese Corporations" (in Japanese), *Kinyu kenkyu Shiryo* 2, Bank of Japan, April 1979.

⁹ Iwao Kuroda, "About Japanese Financial Structure" (in Japanese), *Security Markets in Nineteen Eighties*.

More meaningful insight is gained by statistical measures which indicate degrees of aggregate financial intermediation. In other words, how big is the financial sector, relative to economic activity? Table VII provides one such measure in the ratio of total liabilities of financial intermediaries to GNP. Given that holders of financial instruments have to bear risks of one kind or another, development of financial intermediation represents an advance in reducing transaction or information costs associated with such risk bearing. Financial intermediaries, through specialization, significantly reduce information costs of assessing or monitoring particular types of financial transactions. Also, there are substantial economies of scale in transacting large quantities in the financial markets. An equally important function of financial intermediaries is in pooling specific risks.

By holding various types of assets and transforming them into a single liability, financial intermediaries not only reduce costs but also transform the nature of risks. The pooling of risk, for example, makes it possible for financial intermediaries to engage in liquidity transformation, that is, collect deposits of shorter maturity and make investments and loans of longer maturity. The extent of the mismatch of asset-side and liability-side liquidity cannot be too large since financial intermediaries have to possess sufficient liquidity for withdrawals of deposits. But transactions in interbank markets or money market instruments and recourse to central bank financing make it possible to reduce risks resulting from liquidity transformation.

TABLE VII.—FINANCIAL SYSTEM LIABILITIES AS A PROPORTION OF GNP

Year	Japan ¹	Japan ²	United States
1910		0.630	
1915		.819	
1920		.885	
1925		1.040	
1930		1.204	
1935		1.266	
1940		1.499	
1944		1.990	
1946		.579	
1950		.395	
1953	0.897	.580	1.063
1954	.910	.651	1.135
1955	.952	.714	1.121
1956	1.049	.801	1.124
1957	1.124	.845	1.123
1958	1.272	.962	1.200
1959	1.373	.994	1.180
1960	1.412	1.031	1.204
1961	1.421	1.034	1.272
1962	1.522	1.136	1.270
1963	1.615	1.227	1.315
1964	1.602	1.231	1.346
1965	1.686	1.294	1.363
1966	1.718	1.302	1.320
1967	1.688	1.294	1.378
1968	1.669	1.279	1.392
1969	1.723	1.307	1.362
1970	1.852	1.211	1.405
1971	1.840	1.452	1.259
1972	2.034	1.571	1.509
1973	1.992	1.529	1.467
1974	1.919	1.482	1.444
1975	2.028	1.592	1.468
1976	2.079	1.658	1.473
1977	2.128	1.690	1.478
1978	1.930	1.767	1.507

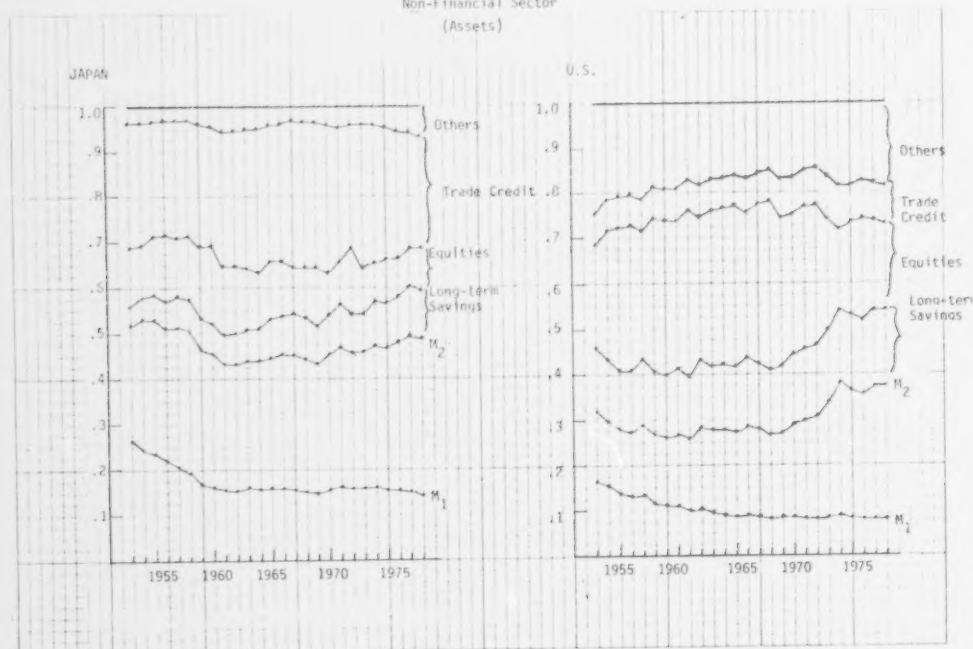
¹ Data from "Flow of Funds Account," Bank of Japan and the Federal Reserve System.

² Deposits, savings, CD, and bank debenture of financial institutions. Data from "Historical Statistics of Japanese Economy," Bank of Japan, 1962 and "Economic Statistics Annual," Bank of Japan, 1979.

Because of intercountry or intertemporal differences in the composition of and/or specific characteristics of their liabilities, the ratios shown in Table VII are not directly comparable. However, the ratios could be taken, in some approximate terms, as the indicators of the degrees of financial intermediation for the United States and Japan. The degrees of financial intermediation show upward drift in both countries. In the United States, "the continuation and even acceleration of the trend toward intermediate markets" has been accompanied by "simultaneous rise in the economy's reliance on privately issued debt."¹⁰ As shown in Figure I, the ratio of overall debt to GNP has been relatively stable, but the composition of debt has shifted substantially from public to private. Since privately issued debts are more risky than government securities, the overall level of risk in the United States has increased substantially despite the stable overall ratio. This increase in aggregate liability-side risk in America encouraged rapid advances in financial intermediation, to blunt the effect on individuals' asset-side risk.

In Japan, the rise in the ratio of financial intermediary debts to GNP was extremely rapid. The 1978 ratio was more than twice that of 1953. Unlike in the United States, the advance in financial intermediation in Japan is closely associated with overall deepening of debts. The share of public debt in total credit market debt did rise in Japan after 1960, and this implies less risk; but the rapid surge in the overall ratio of debt to GNP more than offset this change in composition. In the Japanese case, the increase in financial intermediation was encouraged not by the shift in debt composition, but rather by overall deepening of debts.

FIGURE II
WEALTH COMPOSITION
Non-Financial Sector
(Assets)



¹⁰ B. Friedman, *op. cit.*

TABLE VIII.—WEALTH COMPOSITION: NONFINANCIAL SECTORS (PERCENT OF TOTAL)—ASSETS

Year	Total amount (billions)		M ₁		M ₂		Long-term savings	
	Japan	United States	Japan	United States	Japan	United States	Japan	United States
1953	¥7,645.1	\$714.5	0.266	0.169	0.520	0.319	0.039	0.141
1954	8,488.9	811.5	.245	.153	.529	.297	.047	.134
1955	10,073.3	910.2	.236	.139	.529	.278	.057	.132
1956	12,645.6	959.6	.222	.132	.513	.274	.059	.135
1957	14,532.1	950.3	.203	.134	.514	.289	.065	.145
1958	17,390.7	1,100.1	.191	.119	.507	.269	.068	.138
1959	22,510.9	1,183.1	.171	.113	.467	.261	.067	.139
1960	27,723.4	1,214.4	.166	.112	.455	.268	.069	.145
1961	34,692.5	1,372.8	.156	.100	.431	.256	.068	.141
1962	41,600.6	1,363.8	.103	.103	.431	.281	.070	.147
1963	51,744.9	1,510.9	.164	.097	.439	.276	.070	.145
1964	60,289.2	1,637.1	.160	.093	.440	.277	.071	.147
1965	70,360.2	1,796.6	.161	.088	.447	.274	.081	.145
1966	81,609.3	1,808.6	.160	.089	.452	.286	.085	.152
1967	95,715.2	2,058.0	.156	.086	.451	.278	.087	.147
1968	112,844.1	2,322.7	.151	.082	.445	.269	.088	.141
1969	139,251.0	2,297.3	.148	.084	.431	.272	.085	.149
1970	156,066.8	2,387.6	.154	.084	.452	.290	.091	.155
1971	184,851.2	2,645.2	.166	.082	.472	.299	.093	.156
1972	237,778.1	2,944.9	.160	.080	.457	.306	.088	.158
1973	282,295.8	2,912.4	.161	.086	.461	.339	.085	.159
1974	311,166.0	2,809.6	.163	.089	.474	.378	.093	.163
1975	365,044.5	3,214.0	.153	.083	.471	.363	.095	.166
1976	414,098.5	3,657.5	.153	.078	.479	.375	.099	.165
1977	453,922.0	3,892.2	.151	.078	.493	.373	.105	.168
1978	523,168.0	4,306.9	.142	.078	.488	.373	.109	.169

	Equities		Financial Investment		Loans		Trade Credit	
	Japan	United States	Japan	United States	Japan	United States	Japan	United States
1953	0.129	0.227	0.027	0.220	0.009	0.025	0.276	0.065
1954	.116	.289	.025	.195	.010	.023	.273	.062
1955	.127	.314	.022	.189	.010	.202	.255	.069
1956	.145	.318	.020	.185	.009	.200	.255	.069
1957	.131	.281	.022	.193	.007	.021	.261	.071
1958	.139	.339	.029	.170	.006	.210	.251	.067
1959	.156	.340	.033	.177	.005	.017	.273	.066
1960	.169	.326	.041	.174	.003	.018	.263	.068
1961	.150	.364	.051	.157	.003	.017	.296	.065
1962	.148	.321	.051	.162	.002	.019	.298	.069
1963	.136	.340	.048	.153	.002	.018	.305	.067
1964	.126	.344	.046	.146	.003	.019	.314	.067
1965	.129	.354	.039	.138	.001	.020	.302	.069
1966	.121	.316	.037	.147	.001	.020	.304	.076
1967	.101	.350	.036	.133	.001	.021	.325	.072
1968	.114	.370	.035	.127	.001	.021	.318	.073
1969	.131	.325	.037	.147	.001	.021	.316	.084
1970	.087	.306	.043	.143	.000	.021	.328	.084
1971	.091	.315	.048	.129	.000	.020	.296	.081
1972	.142	.310	.043	.124	.000	.020	.270	.082
1973	.101	.244	.043	.140	.000	.021	.310	.096
1974	.086	.180	.044	.163	.000	.023	.303	.092
1975	.099	.205	.048	.160	.000	.022	.287	.084
1976	.091	.226	.054	.151	.000	.022	.277	.080
1977	.083	.200	.061	.154	.000	.023	.259	.083
1978	.089	.188	.067	.157	.000	.023	.247	.085

Source: "Flow of Funds Account," op. cit.

Figure II and Table VIII show the composition of financial assets of nonfinancial sectors in both countries, along with the difference in degrees and patterns of financial intermediation in both countries. Holdings of equities and bonds are much larger in the U.S. while M₂ constitutes close to 50 percent of Japanese nonfinancial sector holdings of total financial assets. The figure clearly indicates the pattern of financial intermediation in Japan which is dominated by banks and post offices. Another interesting aspect of the table is that

the proportion of financing through trade credit is much larger in Japan than in the United States. It is often claimed that Japanese nonfinancial corporations, notable examples of which are trading companies,¹¹ engage in substantial financial intermediation to their customers and subsidiaries by the use of trade credits and other measures.¹² The figure and table are consistent with such explanations. If that is the case, then the degree of Japanese financial intermediation is even larger than implied by the ratio of overall liabilities of financial intermediaries to GNP. All in all, there seems to be little question that Japanese post war financial markets are characterized by high degrees of financial intermediation.

C. LOW PUBLIC DEBTS AND HIGH PUBLIC FINANCIAL INTERMEDIATION

Another striking contrast, seen in Figure I, between the U.S. and Japan is the evolution of public debt throughout the postwar period. In the United States the ratio of outstanding public debt to total nonfinancial credit market debt was as high as 71 percent in 1946. In contrast, the ratio of Japanese public debts to total was only 10 percent in 1953. Gradual and steady decline in the United States and rapid increase in Japan after 1971 has made these ratios converge. At the end of 1978, the ratios of public debts to total stand at 19 percent and 14 percent respectively in the United States and Japan. Despite the gradual convergence the ratio is still lower in Japan than in the United States.

The low initial value for Japan was the result of rampant inflation that plagued the country during the late forties. This low initial value coupled with the principle of balanced budget for the general account of the central government, which was strictly adhered to until 1966, made it possible for Japan to maintain extremely low outstanding amounts of public debts during most of the postwar period. The amount of central government deficit started to bulge after 1971 and reached its peak in 1979 when 39.6 percent of the general account expenditures were financed by the net flotation of public bonds. However, despite this recent bulge, it is probably legitimate to characterize the entire span of these 30 some years in Japan as a period when the share of public debt to total debt remained low.

A natural counterpart of this relatively low debt share for the Government is the high debt share for the private sector. In particular, the share of credit market debt of corporations has remained extremely high throughout that period for Japan. By 1978 the share had fallen to "only" 47 percent as compared to 30 percent for the United States. But before the first oil shock, the share had never gone below 60 percent, and had stayed near 70 percent most of the time. This high share for corporations is no doubt a major reason for the high investment rate and the high rate of growth of Japanese GNP. The low public debt share has contributed to these results by not causing significant crowding out in the markets, and by encouraging the advance of financial intermediation to take more

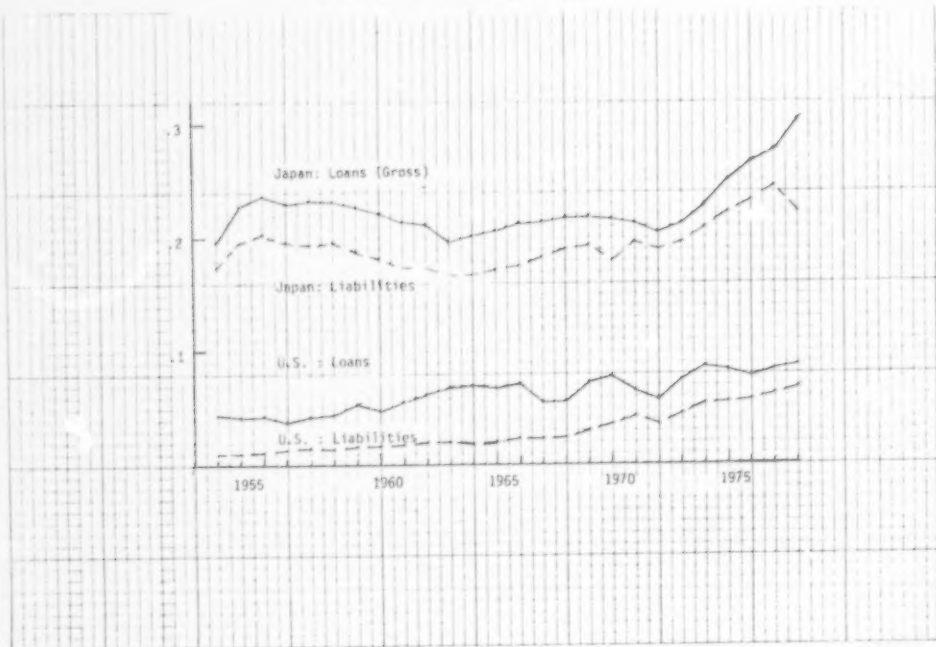
¹¹ For the explanations of activities of trading companies in these financial operations, the reader is referred to A. K. Young, *The Sogo Shosha: Japan's Multinational Trading Companies*, Westview Press, Inc., 1979.

¹² Other measures include, for example, guarantee loans. See, Young, op. cit.

risks associated with private debts. Although there is a question with regard to the direction of causality,¹³ we could argue that the paucity of riskless government securities induced the economy to continue devising ways to bear more risk. The chief method was more intermediation.

The Japanese Government itself played a very significant role in raising the degree of financial intermediation. Table IX and Figure III show the shares of government financial institutions in loans (assets) and in total liabilities of all financial intermediaries for the United States and Japan. As can be readily confirmed by the figure, the shares are significantly higher for Japan throughout the period. Detailed comparative analysis of government activities in financial intermediation is given in Section V, and we will simply note here that its significance is much greater than the quantitative aspects the figure and table suggest. On the liability side, there is little question that the post offices have created an atmosphere of intense competition among financial intermediaries in the collection of deposits. In fact, competition from post offices is often called unfair, and has become a major concern of private financial intermediaries during the last decade. The existence of the post office system contributes significantly to the high intensity competition in retail banking. As argued in Section IV, this intensity is one of the major aspect of Japanese financial markets.

FIGURE III
GOVERNMENT FINANCIAL INTERMEDIATION



¹³ B. Friedman, *op. cit.*

TABLE IX.—GOVERNMENT FINANCIAL INTERMEDIATION: GOVERNMENT FINANCIAL INSTITUTION SHARES IN FINANCIAL SECTOR LOANS AND TOTAL LIABILITIES

Year	Loans (assets)			Total liabilities	
	Japan		United States	Japan	United States
	Gross	Net ¹			
1953	0.198	0.172	0.045	0.175	0.010
1954	.229	.208	.041	.197	.010
1955	.238	.196	.044	.203	.011
1956	.230	.186	.039	.197	.013
1957	.233	.186	.042	.194	.015
1958	.231	.181	.045	.196	.014
1959	.227	.176	.053	.189	.017
1960	.221	.169	.049	.182	.018
1961	.213	.163	.056	.173	.019
1962	.211	.160	.062	.173	.020
1963	.197	.150	.069	.168	.020
1964	.201	.152	.070	.168	.019
1965	.207	.155	.068	.171	.020
1966	.212	.157	.071	.176	.023
1967	.213	.156	.056	.183	.023
1968	.218	.158	.056	.190	.024
1969	.218	.156	.072	.193	.030
1970	.216	.153	.078	.180	.036
1971	.211	.148	.065	.197	.042
1972	.204	.144	.058	.190	.036
1973	.211	.149	.074	.196	.045
1974	.229	.162	.087	.209	.054
1975	.250	.179	.083	.221	.056
1976	.267	.193	.079	.231	.058
1977	.279	.201	.083	.244	.062
1978	.304	.238	.098	.222	.069

¹ Loans among government institutions are excluded from "net" column.

Source: "Flow of Funds Account," op. cit.

TABLE X.—HOUSING AND CONSUMER CREDIT¹

Year	Japan (billions of yen)				United States (billions of dollars)			
	Mortgages	Consumer installment	Total	Ratio to GNP	Mortgages	Consumer installment	Total	Ratio to GNP
1950 ²	---	---	---	---	72.8	21.5	94.3	0.331
1955 ²	---	---	---	---	129.9	38.8	168.7	.432
1960 ²	---	---	---	---	206.2	56.1	262.3	.520
1965 ³	40.0	688.7	728.7	0.023	325.7	90.3	416.0	.608
1970 ³	714.7	2,517.0	3,231.7	.046	451.2	127.2	578.4	.594
1975	14,472.7	3,534.7	18,077.4	.121	801.5	172.4	973.9	.637
1976	19,158.4	4,003.3	23,161.7	.138	889.3	194.0	1,083.3	.636
1977	23,891.9	4,661.5	28,553.4	.153	1,023.5	230.8	2,254.3	.665
1978	30,197.4	5,602.4	35,799.8	.175	1,172.5	275.6	1,448.1	.681

¹ Both Japanese and United States data are outstanding amounts at the end of year, Dec. 31.

² Separate data are not available for Japan.

³ Figures only include loans made by all banks (city banks, local banks, trust banks, long-term credit banks, and trust accounts of all banks), and mutual loan and savings banks.

Sources: "Economic Statistical Annual," Bank of Japan, various issues. "Federal Reserve Bulletin," Board of Governors, Federal Reserve, various issues.

On the asset side, loans from banks such as the Japan Development Bank or Japan Export and Import Bank are not only important in terms of their quantity but also in terms of the de facto guarantee the government provides through them. These public banks often form part of bank consortia for giant projects of large corporations. Even if their share in consortia is small, their mere membership effectively guarantees the project, thereby reducing the risk to private financial intermediaries by very significant degree.

D. LOW LEVELS OF CONSUMER CREDIT

Another distinctive characteristic of Japanese financial markets that we can identify from Figure I is the low levels of financial liabilities of individuals. Since the category "individuals" includes unincorporated business in the Japanese flow of funds statistics and since American statistics are adjusted accordingly, the numbers in Figure I and Table IV include, among other things, bank loans to unincorporated business. Table X gives figures for home mortgages and installment and consumer credit for the two countries.

Although consumer credits have expanded quite rapidly in the seventies, they are still about a quarter of the level in the United States, in proportion to GNP. It is fair to characterize the postwar Japanese financial markets as being closed to consumers. Given the well known fact that Japanese consumers are very eager to own houses or condominiums,¹⁴ this liquidity constraint on home financing is a strong motive for savings in Japan. (It may be worth while to note in the passing here, that Japan ranks among the top in the world for the percentage of home ownership despite the very high cost of housing construction.¹⁵)

The theory of consumption and savings normally assume that individuals can borrow and lend freely at the market interest rate. To the extent that they have free access to financial markets, at the competitive market rate, they can choose the optimal path of their consumption independent of the life-cycle patterns of income, provided that their discounted value of lifetime income is the same.¹⁶ Indeed theoretical models are always simplifications of the reality and their usefulness lies in cutting through the complex maze of the world with simple but not entirely unrealistic assumptions. However, in such case as the postwar Japan where, access to any type of financial debts had been extremely limited for consumers, such a liquidity constraint should be an integral part of the model.

To the extent that liquidity constraints are binding, the life cycle patterns of income, which in Japan is typically skewed toward high receipts in old age due to the seniority wage structure, has important effects on consumption-savings behavior.¹⁷ Since the young had to save to build houses instead of borrowing to do so, and since the skewed wage structure left the old to save whatever was left after consumption, the liquidity constraint tended to increase overall savings of the country. The seniority wage structure, alone, would not be sufficient to motivate higher savings; but when accompanied with poor consumer financing, it seems plausible to argue that the combination generated higher overall personal savings for the country.

¹⁴ See, for example, various issues of *Public Opinion Survey on Savings*, Bank of Japan.

¹⁵ Home-ownership ratio in Japan in 1973 was 59 percent as compared to 63 in the United States surpassing the levels in European countries. Economic Planning Agency, *Whitepaper on National Life—1977*.

¹⁶ See, for example, F. Modigliani, "The Life Cycle Hypothesis of Saving, the Demand for Wealth and the Supply of Capital", *Social Research*, vol. 33, No. 2., 1966. M. Friedman, *A Theory of the Consumption Function*, Princeton University, 1957.

¹⁷ R. Komiya, "The Supply of Personal Savings," R. Komiya (ed.), *Postwar Economic Growth in Japan*, University of California Press, 1966.

SUMMARY

In comparing the flow of funds data between the United States and Japan, during the postwar period we have identified four distinct characteristics of Japan financial evolution after World War II: (1) continuous deepening of financial debts; (2) high degree of financial intermediation; (3) active role of government financial intermediation in contrast to the small size of government expenditures; and (4) low level of consumer financing. These characteristics of financial markets seem to provide some provisional answer to the questions posed in Section II.

Continuous deepening of debts made it possible for corporations to rely heavily on borrowed funds, thus raising their level of investment and reducing the real cost of financing.¹⁸ This continuous accumulation of debts has been concentrated in the corporate sectors through various specific factors characterizing the market. Small outstanding amounts of government debt along with de facto closure of markets to consumers until the seventies made it possible to direct financial flows mostly to corporations and investment. Government, in its role as financial intermediary, helped channel funds in this direction.

The rapid advancement of financial intermediation, on the other hand, encouraged asset holders to accumulate wealth at an unprecedented rate, by lowering both transaction and information costs as well as the average risk per yen of assets. Accumulation of financial wealth, indeed, may have been motivated by other factors as well¹⁹ but rapid advancement of financial intermediation was certainly not detrimental. The overall risk of a standard portfolio does not seem to have gone up significantly, with the rising share of riskless government securities, so there is a good reason to suspect that deepening of intermediation has contributed to additional accumulation of financial assets. The precise quantitative evaluation of such an effect is beyond the scope of this essay. But given the types of data presented here, it would perhaps be unrealistic to exclude financial intermediation from any models designed to explain consumption-savings behavior of the postwar Japanese economy.

The next question is this: what factors have made it possible for the Japanese economy to incur increasingly large amounts of financial debt and to advance financial intermediation so rapidly? The answer, we feel, lies in the structure of financial markets that have evolved since late 1920's and early 1930's. Closely related to this structure are government policies which facilitated such developments and which directly encouraged some aspects of the evolution. We turn to these questions in Sections IV and V.

¹⁸ This is what Suzuki called overborrowing phenomenon. However, whether it is an "over," "under," or "just appropriate" level of borrowing cannot be determined a priori. Y. Suzuki, op. cit.

¹⁹ See, R. Komiya, op. cit., K. Yoshihara, "The Growth Rate as a Determinant of Savings Ratio," *Hitotsubashi Journal of Economics*, February 1972.

SECTION IV

It is our working hypothesis that Japan's structure of financial intermediation and patterns of government involvement during the postwar period have helped deepen the amount of debt and raise the degree of financial intermediation. This section advances the argument, and poses two major propositions about the structure of financial intermediation in Japan.

First: Japanese financial intermediaries compete fiercely in retail operations, despite regulations. The regulations in Japan have been less stringent than those imposed in the United States on American intermediaries. Qualitative judgment on the relative tightness of regulations is not easy, but documentation of regulations presented in this section and the appendix indicates that statutory regulations are more extensive both in scope and stringency in the United States. The difficulty lies in the assessment of administrative guidance by Japanese authorities, i.e., informal regulation for which no objective statistics exist. Our impression, however, is that administrative guidance, although quite pervasive in some areas, does not effectively constrain competition among financial intermediaries. There has always been competition from intermediaries not subject to guidance, such as post offices and agricultural and fishery cooperatives. These institutions together hold approximately 20 percent of total deposits of all financial intermediaries, and have not been under administrative guidance of either the Ministry of Finance or the Bank of Japan. Because of the existence of institutions under different jurisdictions and because of the difficulties of coordinating nonstatutory regulations among regulatory agencies, no one regulator can guide its subordinate institutions so harshly that they lose competitive edge to those under different jurisdictions.¹ Accordingly, we regard administrative guidance as the outcome of negotiations for privilege within an industry, rather than as additional control. That is, administrative guidance is often imposed to attenuate what Williamson called "opportunism"² rather than to restrict competition.

Fierce competition in retail markets has raised the implicit interest rate on deposits, and has forced strenuous efforts at deposit collection.³ It is only natural that intense competition, through better service and greater collection effort, lead to larger amounts of deposits. Since deposits with financial intermediaries constitute more than 60 percent of financial assets (excluding trade credit), it is reasonable to

¹ Japanese commercial banks have ascribed the continuous decline in their market share to regulatory disadvantages they suffer compared to post offices and thrift institutions. See, for example, A. Horiuchi, "Decline of City Banks' Share and Its Implications," Nomura Research, *Security Markets in the Eighties*, 1980.

² O. E. Williamson, *Markets and Hierarchies: Analysis and Antitrust Implications*, The Free Press, 1975.

³ The level and rate of growth of deposits are of great concern to branch managers of Japanese banks, and much energy and effort are allocated to deposit collection. It has been quite difficult for Tokyo branches of foreign banks, whose approach to banking often stresses asset management rather than liability acquisitions, to compete effectively with Japanese counterparts. K. Hasegawa, "Can Foreign Banks Compete With Japanese Management?" (in Japanese), *Shokun*, March 1981.

conjecture that the aggregate level of savings was higher due to this competition.

The second proposition is this: The Japanese financial system allows savers to pool and diversify risk so as to reduce tremendously the overall risk on the individual's portfolio. The standard facts of intermediation are described by B. Friedman⁴ as follows:

In transforming the direct claims that they hold into indirect claims that they issue, intermediaries economize on transaction costs so as to facilitate diversification by enabling investors to earn interest (indirectly) on a large number of imperfectly divisible assets. In addition, by pooling many individuals' and businesses' needs for liquidity, deposit intermediaries often change the risk characteristics of the aggregate assets to be held by issuing claims (often explicit or implicit demand claims) that have a shorter maturity than the claims that they in turn hold.

But in Japan there is more. Along with the normal functions of intermediaries quoted above, long-term credit banks and government intermediation (which are explained in detail later in this section and in Section V) have allowed the Japanese financial system to diversify and to pool risks in a very efficient manner. In many instances, long-term credit banks, whose liquidity is assured by special privileges granted them in flotation of medium-term notes, have functioned as lead managers or co-managers in loan syndicates. The role played by long-term credit banks, particularly by the Industrial Bank of Japan, resembles that of special bracket underwriters in the United States. The long-term credit banks along with major city banks, effectively underwrite an industrial project by forming loan syndicates including many small banks. Not only do they act as managers of syndicated loans, but they also act as de facto underwriters of corporate bond issues along with big securities houses—the equivalent of investment banks in the U.S.—who are the legal underwriters. Japan's Securities Transaction Law of 1948, which was patterned after America's banking and securities laws of the 1930's, does prohibit dealing in and underwriting of securities by banks, except for public securities. But long-term credit banks have performed a de facto underwriting function in cooperation with major securities houses and commercial banks.

The widespread use of syndication has not, however, led to the cartelization of funds supply. Each commercial bank has competed quite vigorously to become the "main bank",⁵ or primary lender, to good customers. The position of the main bank could be compared to that of lead manager in underwriting bonds in the U.S. capital market. Long-term credit banks have held a unique position in that they have not directly competed with commercial banks, but often performed complementary functions with the main commercial banks.

The discussion of *keiretsu*, corporate groups, often centers around the role of the main bank of a group of corporations which once were members of the old *zaibatsu*, or prewar conglomerate.⁶ Mitsubishi Bank, for example, plays the function of main bank to a large number of companies in the Mitsubishi group, and Sumitomo Bank is the main bank to a group of old Sumitomo corporations. The importance of grouping, however, has been overemphasized, and main banks are

⁴ B. Friedman, op. cit.

⁵ The main bank of a corporation is the bank which holds the highest share of loans to that corporation.

⁶ E. M. Hadley, *Antitrust in Japan*, Princeton University Press. R. E. Caves and M. Uekusa, "Industrial Organization," *Asia's New Giant: How the Japanese Economy Works*, Brookings Institution, 1976.

usually followed closely by second and third banks which have no group connections. Despite the legacy of *zaibatsu*, both statistics and interviews⁷ indicate only loose connections among *keiretsu* members, and pervasive competition among banks to secure as many good loans as possible for themselves.

What is interesting about the postwar Japanese financial system is that extensive loan syndication has been compatible with fierce competition among banks. This compatibility of competition and syndication is perhaps the key to many puzzles about the postwar Japanese system in the areas of industrial policy, financial policy, and more generally the relationship among business firms and government.

But there is always some upper bound on how much risk that purely private institutions can bear. Huge projects with very high expected return but long gestation periods or high risks—such as investments in steel, shipbuilding, or petrochemicals—fit in this category. Other examples include natural resources or social infrastructure projects in foreign countries, such as investments in Australia, China, Mexico, Brazil or Siberia.

It is precisely in projects like these that a key role has been played by government financial intermediaries such as the Japan Development Bank and the Japan Export Import Bank. These public financial intermediaries normally participate in loan syndications for larger and riskier projects. The share in syndications taken by these public banks, however, is not usually large. Their importance lies in the effective government guarantee that their participation gives the project. They can effectively underwrite projects which are otherwise too risky to finance. In short, government financial institutions socialize the risk.

The role of public financial intermediaries is not to undertake projects with lower expected return, but rather to reduce the exposure of individual institutions in risky projects with *higher* expected return. Thus, the country as a whole undertakes the risky, high return projects, and cultivates the potential for a higher rate of GNP growth. As long as the credibility of government's fiduciary liabilities is not at stake, the public sector can perform the function of financial intermediary very effectively.

A. HISTORICAL BACKGROUND

Before turning to details of the above propositions, a brief discussion of historical evolution of the Japanese financial system seems in order.

As in the case of the United States, many of the current Japanese financial regulations date back to the late 1920's and early 1930's. The Banking Act, which forms the basis of contemporary Japanese financial policies, was enacted in 1927. The law reflected the recommendations of the Committee on Financial System Research (*Kinyu Seido Chosakai*), which was established in 1925 in the midst of financial panics of the 1920's. But in contrast to the United States, where responsibility for bank regulation has been shared by many institutions, the Japanese Banking Act mandated strong national leadership

⁷ See, for example, E. Hadley, op. cit., Ed Lincoln, "Keiretsu", *Council Report*, No. 61., U.S.-Japan Trade Council, Oct. 31, 1980.

in bank regulation. Strong measures were taken to merge and consolidate banks, and the total number of commercial and savings banks fell from 1,541 in 1926 to 498 in 1936, and finally to 65 in 1945. (See Table XI.)

TABLE XI.—EVOLUTION OF NUMBERS OF BANKS

Year	Commercial banks	Saving banks	Total
1926	1,417	124	1,541
1930	779	90	869
1932	538	87	625
1933	516	85	601
1934	484	79	563
1935	466	79	545
1936	424	74	498
1937	377	72	449
1938	346	71	417
1939	318	71	389
1940	286	71	357
1941	186	69	255
1942	148	69	217
1943	86	27	113
1944	72	20	92
1945	61	4	65
1950	67	—	67
1960	77	—	77
1970	76	—	76
1980	76	—	76

Source: Bank of Japan.

TABLE XII.—SHARES OF VARIOUS FINANCIAL INSTITUTIONS TO TOTAL DEPOSITS AND BANK DEBENTURES (PERCENT)

	1910	1920	1930	1940	1950	1960	1970	1979
Commercial and savings banks ¹	72.8	70.3	47.4	46.4	57.4	49.9	41.9	35.0
Big 5 ²	12.7	14.4	14.7	15.5	38.3	32.8	26.2	20.5
Local banks ³	60.1	55.9	32.7	30.8	19.1	17.1	15.6	14.5
Long term credit banks ⁴	14.4	14.9	13.0	10.4	8.9	5.7	6.0	5.7
Trust institutions	—	—	7.6	8.1	2.7	10.1	9.6	11.7
Thrift institutions ⁵ including co-operatives	0.3	2.2	7.1	13.5	17.4	19.5	25.5	25.1
Life insurance companies	3.8	4.4	6.6	5.6	2.0	4.1	6.0	5.7
Post offices	8.6	8.2	18.3	16.0	11.6	10.7	11.0	16.8
Total deposits and bank debentures ⁶ (million yen)	¥2,010	¥10,916	¥21,680	¥62,816	¥1,617	¥17,020	¥92,658	¥377,994

¹ Figures are sums of commercial and savings banks before the war. There are no savings banks after the war.

² Figures represent Daiichi, Sumitomo, Yasuda, Mitsui, and Mitsubishi for prewar period. Postwar figures given are the share of city banks.

³ Figures in 1940 include the share of Sanwa Bank, created in 1933 by mergers.

⁴ Prewar figures are those of specialized banks.

⁵ Including Shokochukin Bank and Norinchukin Bank.

⁶ Prewar figures are millions of yen while postwar figures are billions of yen.

Source: Prewar figures by H. Patrick, op. cit., postwar figures are derived from "Economic Statistic Annual" of Bank of Japan.

In terms of size distribution within banking proper, deposit concentration in the five major banks rose during this period. Table XII shows the Big Five share of deposits of all banks to have gone from 20.5 percent ($=14.4/(14.4+55.9)$) to 31.0 percent ($=14.7/(14.7+32.7)$) between 1920 and 1930. However, as pointed out by Patrick,² this concentration seems to have been overemphasized in the Japanese literature. A much more significant increase was that of the share in total deposits of all financial intermediaries taken by the post office

² H. Patrick, "Evolution of the Japanese Financial System During Interwar Period" (in Japanese), T. Nakamura (ed.), *Analysis of the Japanese Economy During the Interwar Period*, February 1981.

and thrift institutions. Their combined share rose from 10.4 percent to 25.4 percent. The sudden jump in the share of the post office in 1930 was the result of a financial panic; riskless deposits with the Government were valued very highly relative to deposits at private banks with default risk. Although the share of these institutions dropped again in the postwar period, and although bank deposits today are considered virtually risk free, the existence of completely risk free assets in the retail market may be important in reducing overall risk associated with deposits.

Rapid increase in shares of thrift institutions, particularly of agricultural and fishery cooperatives during the thirties, was partly due to corporatist philosophy adopted by the militaristic regime of the period. But these thrift institutions, despite the end of the militaristic regime and of state corporatism, in Schmitter's terminology,⁹ thrived throughout the postwar period. In 1979, they held 25 percent of total deposits. The development of thrifts has not been given much attention in the past literature but seems extremely important in explaining very competitive and pervasive nature of retail banking in the postwar period. Commercial banks, despite their relatively strong position in the market, were forced to so-called "mass sales drives" as early as the late 1950's to counter competition from the thrift institutions and post offices. Prewar development of these institutions with some support from the corporatist state seems to have laid the foundation for intense postwar competition in retail banking. Had it not been for this foundation, commercial banks could have achieved a fair degree of concentration without jeopardizing their position in the industry.

This prewar period of bank consolidation is often associated with increasing controls and regulations, and is alleged to have formed the basis for control-dominated "peculiarities" of the postwar Japanese financial system.¹⁰ But to elaborate an earlier point, there are serious analytical difficulties, both substantive and normative, in characterizing Japanese financial markets as "peculiar." The substantive problem is that this characterization overlooks the increasing diversification of financial intermediation in the prewar period. The normative problem is that it judges the appropriateness of public policy not by the resulting performance of the economy, but by an implicit ideology of the analyst. Of course, wartime controls were extensive; and the horrors of the war speak for themselves. But this does not necessarily imply that the financial system that developed simultaneously is inherently fascist. Financial developments since the 1930's have included many institutional innovations which, particularly after some modifications during the Occupation period, turned out to be extremely effective in increasing savings and investment.

The Occupation period (1945-52) was also a crucial phase in the evolution of the financial system. It is often said that Occupation policies had virtually no impact on the Japanese financial system.¹¹ Such statements are true in a certain sense. The prewar trend was not reversed by Occupation policies, and little direct action was taken on

⁹ P. C. Schmitter, "Still the Century of Corporatism," P. C. Schmitter (ed.), *Trends Toward Corporatist Intermediation*, Beverly Hills, Sage, 1979.

¹⁰ A typical example of such a view is expressed by T. Nakajima, *Japanese Debt Management Policy* (in Japanese), Toyokeizai Shinposha, 1977.

¹¹ E. Martin notes that "the only significant gap appears to be in relation to financial institutions." *The Allied Occupation of Japan*, Stanford University Press, 1948.

the financial sector in applying antitrust policies. However, the reforms implemented during the period affected the financial markets in fundamental, through indirect ways.

First, dissolution of the *zaibatsu*—which, when coupled with inflation, resulted in de facto confiscation of equities—completely changed the ownership structure of assets. Along with the land reform which effectively prohibited the ownership of more than three *cho* (about 7½ acres) of arable land, the *zaibatsu* dissolution put an end to the prewar practice of private placement of equities with wealthy individuals, *zaibatsu* corporations, and *zaibatsu* holding companies. As a result, the trend toward intermediation was drastically accelerated, and banks and other financial institutions became more important.

Second, reorganization of specialized banks into long term credit banks in 1952 (by enactment of the Long Term Credit Bank Act) and establishment of new public financial institutions between 1949 and 1952 laid the groundwork for effective syndication of loans and coordination of underwriting later in the period. Among the institutions established were the Peoples Financial Corporation (*Kokumin Kinyu Koko*) in 1949, the Residential Finance Corporation (*Jutaku Kinyu Koko*) in 1951, and the Japan Development Bank (*Nihon Kaihatsu Ginko*) in 1951.

Third, the Dodge Line adopted in 1949 and subsequent legislation effectively established a policy regime for the subsequent period until the late 1960's.¹² The financial aspect of this regime was to ban flotation of national bonds to cover current deficits of general account of the central government. Since the inflation of the late 1940's had wiped out the outstanding national debt, the establishment of a balanced budget principle meant that the Japanese Government could not borrow significant amounts from financial markets. Moreover, the regime meant that the government *could* act as a financial intermediary since it had enormous funds from postal savings deposits, which had previously funded national debt. The Japanese Government could thus lend money without floating debt. Rather than issue securities in wholesale markets, the Government raised funds directly from retail markets, through the postal savings system that had become very active since the 1930's.

Although the above list is by no means exhaustive, Occupation measures had an enormous impact in accelerating the trend toward deeper financial intermediation and efficient socialization of risk. Without reform measures during the Occupation period, the postwar financial system would not have emerged in its present form.

B. COMMERCIAL BANKING REGULATIONS

Banking is a highly regulated industry in both the United States and Japan. The main rationale for regulations is to protect solvency of banks. Indeed, assuring solvency is the key to expanding intermediation, and hence to absorbing and diversifying risk. In this sense, regulations which are stricter than those on other industries may be justified.

¹² Major points of Dodge Line were (1) a balanced budget; (2) anti-inflation policy through tight monetary policy; (3) establishment of unified exchange rate of \$1=360 yen; (4) elimination of price and wage controls and many subsidies.

Japan's banking literature normally assumes, at least implicitly, that Japanese banking regulations are more stringent than those of the United States. But detailed documentation reveals that in fact Japanese banks tend to have more freedom of action in retail markets than their U.S. counterparts.

1. BRANCHING

Limitation of geographic expansion is one area where U.S. commercial banks and thrifts are more heavily regulated than Japanese ones. U.S. banks are not allowed "full-service" offices in more than a single state. This restriction may not be circumvented by forming holding companies which own banks in more than one state, because the same regulation applies to banking offices owned by bank holding companies. Moreover, even within a state, branching by banks and acquisitions by bank holding companies are subject to restrictions imposed by each state. As of July 1979, 11 states prohibited bank branching; and of these 11, 5 prohibited more than 1 banking office for a bank holding company.¹³ Among the 38 states that allowed branching, only 22 permitted statewide branching, and the remaining 16 limited branching in one way or another.

There are no major geographic restrictions on bank branching in Japan. Even noncommercial bank depository institutions, which are closer to commercial banks than the thrift institutions of the United States, enjoy freedom in geographic expansion. There are no geographic restrictions on mutual bank branching at all. Credit associations are limited to branching within prefectures, but prefectures are usually large enough for this constraint not to be binding on the normal small credit associations.

There is a voluminous literature discussing the effects of branching restrictions on the competitiveness of banking markets.¹⁴ The general conclusion, however, is that less restriction brings more competition and better performance. One report of the President to Congress notes, "The empirical studies of banking markets cited in the research compendium generally support the theoretical proposition that price and quality performance in banking is improved through greater actual and potential competition promoted by low barriers to entry, and through lower concentration of economic power in the relevant markets for banking services. Existing restraints on geographic expansion create artificial, arbitrary barriers to entry, and therefore are anticompetitive."¹⁵

Some analysts have called the Ministry of Finance's branch expansion policies conservative and anticompetitive, despite the absence of geographic restrictions. But informed observers of the Japanese retail banking markets disagree with this characterization. Commercial banks, mutual banks, credit associations, agriculture

¹³ Illinois, Kansas, Nebraska, Oklahoma, and West Virginia hold this most stringent branching policy. It might be fair to note, however, that all these 11 so-called "unit banking" states have permitted detached facilities with limited function within prescribed distance of the main offices. See, Department of the Treasury, *Geographic Restrictions on Commercial Banking in the United States—The Report of the President, 1981*, p. 37.

¹⁴ For references, see A. A. Heggstad, "Market Structure, Competition, and Performance in Financial Industries: A Survey of Banking Studies," in F. R. Edward (ed), *Issues in Financial Regulation*, McGraw-Hill, 1979. S. A. Rhoades, "Structure—Performance Studies in Banking: A Summary and Evaluation," Board of Governors of the Federal Reserve System Staff Economic Studies, No. 92, (1977), and Department of the Treasury, op. cit., appendix, chs. 2 and 6.

¹⁵ Department of the Treasury, op. cit., p. 12.

and fishery cooperatives, and post offices compete fiercely for deposits and for commercial loans (post offices, of course, cannot make commercial loans) to creditworthy borrowers. Indeed, competition among these institutions is often called "excessive" by both the Ministry of Finance and the press.¹⁶ Objective assessment of relative competitiveness of U.S. and Japanese banking is not easy because of lack of Japanese data. Japanese data on deposits and loans of individual banking institutions are not available for small areas such as cities, towns, or SMSA's. In Table XIII, however, three and five firm concentration ratios of U.S. bank deposits in states are compared with those of Japanese counterparts in prefectures. Although states and prefectures may not be relevant banking markets, the table should provide some clue about relative competitiveness. The evidence given in the table is consistent with our proposition that Japanese banking is more competitive than U.S. banking.

TABLE XIII.—STATE AND PREFECTURE COMMERCIAL BANKING CONCENTRATION

	United States (statewide branching States) Dec. 31, 1979			United States (statewide branching States) Dec. 31, 1979	
	3 firm	5 firm		3 firm	5 firm
Nevada.....	83.5	96.2	New York.....	37.2	55.1
Arizona.....	85.2	94.5	South Dakota.....	43.7	50.5
Rhode Island.....	87.4	93.9	Virginia.....	33.1	50.3
Delaware.....	73.5	91.7	New Jersey.....	23.0	33.4
Hawaii.....	79.2	91.4			
District of Columbia.....	70.4	88.6			
Idaho.....	75.0	87.1	Japan (Tokyo and Osaka) Mar. 31, 1980		
Oregon.....	74.3	81.1		3 firm	5 firm
Alaska.....	60.7	78.8			
Washington.....	62.3	75.9			
Utah.....	61.5	74.9			
California.....	57.6	73.8			
Maine.....	48.4	73.6	Case 1: ¹		
North Carolina.....	50.9	66.1	Tokyo.....	35.2	49.8
South Carolina.....	44.5	62.2	Osaka.....	46.6	57.7
Maryland.....	44.9	62.2	Case 2:		
Vermont.....	43.8	62.0	Tokyo.....	29.1	41.2
Connecticut.....	46.0	61.1	Osaka.....	36.5	45.2

¹ The concentration ratio is calculated based on deposits of—Case 1: Commercial banks, long-term credit banks, trust banks, bank debentures, trust accounts are not included. Case 2: Banks in case 1, mutual loan and savings banks, credit corporations.

Sources: United States: Department of Treasury, op. cit., appendix, pp. 47, table 2.5. Japan: Federation of Bankers Associations of Japan, Bank of Japan.

2. SEGMENTATION

Another important area of comparison is market segmentation among financial institutions. In particular, regulations on nonbank depository institutions distinguish them from commercial banks. Until the Monetary Control Act of 1980 in the United States, there were distinct differences in what U.S. regulatory authorities regarded as the business activities of commercial banks and those of thrift institutions. For example, the former offered checking accounts, and the latter did not. The latter were allowed to offer higher interest rates on savings accounts. Table XIV summarizes the differences in U.S. regulations on asset and liability sides applied to commercial

¹⁶ President of the Federation of Bankers Association on Aug. 24, 1976, urges in a statement to member banks, "Please restrain from any excessive business activities such that annoy depositors and borrowers and invite criticism from general public."

banks and thrift institutions. These regulatory differences naturally lead to the segmentation of markets between the two kinds of institutions.¹⁷

Japanese regulations make very little distinction between commercial banks and other depository institutions. In other words, the types of regulations listed under Table XIV do not exist in Japan. Table XV shows the differences in proportions of housing loans between commercial banks and thrift institutions, and indicates this regulatory framework has led to less segmentation of markets in Japan.

TABLE XIV.—ASSETS AND LIABILITY POWERS OF COMMERCIAL BANKS AND OTHER DEPOSITORY INSTITUTIONS

	Loans permitted by Federal laws	Accounts permitted by Federal laws
Commercial banks.....	All loans—few limits (restrictions on real estate loans).	Checking (no interest allowed), ¹ savings, time.
Savings and loans associations.....	Housing loans restricted, no consumer loans. ²	No checking, ¹ savings, time.
Mutual savings banks.....	No trust and fiduciary power, no commercial loans.	Do.
Credit unions.....	Commercial or consumer loans ² permitted, mortgage loans up to 30 yr ³ maturity, 25 percent of assets permitted to be loaned to other CU's.	Do.

¹ All depository institutions have been allowed by respective regulatory authorities to offer de facto interest bearing checking accounts since the mid-1970's and the 1980 act declared to make these accounts perfectly legal.

(a) Negotiable order of withdrawal accounts (NOW accounts) at all depository institutions except credit unions. There are interest bearing accounts from which withdrawals may be made through the negotiable order instruments which are the functional equivalent checks. They were first offered by State-chartered mutual saving banks in Massachusetts and New Hampshire in 1972. Congress permitted these in all federally chartered depository institutions, except credit unions, in these 2 States in 1973, in the other 4 New England States (Connecticut, Maine, Rhode Island, and Vermont) in 1976, and in New York in 1978. By 1979, there were 2,300,000 NOW accounts with \$3,800,000,000 deposits in New England and 290,000 NOW accounts with \$1,900,000,000 deposits in New York. (S. Rept. 96-368 (1979), p. 839.)

(b) Automatic transfer services (ATS) at commercial banks. These services allow customers to have funds transferred automatically from an interest bearing savings account to a checking account, thus in effect allow customers to write checks on an interest bearing account. They were authorized by the Federal bank regulatory agencies in 1978, and by 1979 there were 750,000 ATS accounts with \$6,000,000,000 deposits. (Ibid., p. 841.)

(c) Remote service units (RSU) at savings and loan associations. These are off-premise terminals with which a member of the institution can have access to a savings account to make a cash withdrawal or deposit, to cash a check, and to make a direct electronic payment to a merchant. They were temporarily authorized in 1974 and permanently in 1978 for Federal savings and loan associations by the Federal Home Loan Bank Board. By 1979, there were 900 RSU's used by 700,000 Federal saving and loan association members. (Ibid., p. 841.)

(d) Share drafts. They allow members of credit unions, like NOW accounts at banks and savings and loan associations, to have access to interest bearing savings accounts through draft instruments, which are the functional equivalent of a check. The National Credit Union Administration began authorizing the issuance of share drafts in 1974 on an experimental basis, and in 1977 it issued a final regulation implementing the share draft program. By 1979, 1,400,000 members had share draft accounts at 1,800 credit unions. (Ibid., p. 840.)

All of the above instruments (a to d) were authorized for institutions nationwide by the Consumer Checking Account Equity Act of 1980.

² By the 1980 act, consumer loans, investment to commercial paper and corporate debt securities up to 20 percent of assets are authorized.

³ Before 1977, the maturity of loans was limited to up to 10 yr.

Next, Table XVI shows the numbers of financial institutions and branches in the United States and Japan. A hasty observer may have the impression that Japanese commercial banks enjoy oligopolistic powers. There are only 86 commercial banks in Japan, including long-term credit banks, compared to 14,705 in the United States. But because of the similarity in functions between commercial banks and thrifts, at least mutual loan and savings banks, credit associations, and credit cooperative should be taken into consideration. That adds 1,016 institutions and 11,566 branches. Moreover, considering the powerful competitive pressure applied by agricultural cooperatives (4,564 institutions and 16,494 offices) and post offices

¹⁷ Heggstad, commenting on the measurement of monopoly power, observes, "Specialized institutions, generally, only offer partial substitutes to commercial bank products. Thus, to include their deposits equally with banks' may understate the degree of monopoly." A. A. Heggstad, op. cit., p. 470.

(22,074 deposit taking offices), and considering that all of Japan is only the size of Montana, the numbers shown in Table XVI clearly suggest severer competition in Japan.

TABLE XV.—HOUSING LOANS AND MORTGAGES BY TYPE OF DEPOSITORY INSTITUTION (SEPTEMBER 1980)

	Assets (A)	Total loans (B)	Housing loans (C)	C/B percent	C/A percent
Japan 100,000,000,000 yen:					
Commercial banks.....	2,284	1,324	119	9.0	5.2
Mutual loan and savings banks.....	317	207	27	13.0	8.5
Credit associations.....	391	254	39	15.4	10.0
			Residential mortgages		
United States (billions of dollars):					
Commercial banks.....	1,577	877	166	10.5	18.9
Savings and loan associations.....	610	492	447	73.2	90.9
Mutual savings bank.....	169	110	82	48.5	74.5

Sources: United States: Board of Governors of the Federal Reserve System. Japan: Bank of Japan.

TABLE XVI.—NUMBER OF FINANCIAL INSTITUTIONS AND THEIR OFFICES; UNITED STATES AND JAPAN

	Number of institu- tions	Number of offices		Number of institu- tions	Number of offices
UNITED STATES (DEC. 31, 1977):			JAPAN (DEC. 31, 1979):		
Commercial banks.....	14,705	32,880	Commercial banks.....	86	8,510
Mutual savings banks.....	467	2,314	Mutual loan and savings banks.....	71	3,712
Savings and loan associations.....	4,761	17,848	Credit associations.....	462	5,350
Credit unions.....	22,380	NA	Credit cooperatives.....	483	2,504
			Agricultural cooperatives.....	4,564	16,949
			Post offices.....		22,074

Sources: United States: Board of Governors of the Federal Reserve System. U.S. League of Savings Association, National Credit Administration. Japan: Bank of Japan.

3. OTHER REGULATIONS

The appendix summarizes main banking regulations (including branching and market segmentation) in the United States and Japan. An unambiguous judgment on relative stringency is difficult, but the summary indicates that the widespread perception of tighter regulations in Japan is not supported.

One notable difference not previously discussed is regulations on portfolio composition. Equity investments are prohibited in the United States but permitted in Japan, as long as a single bank's holdings do not exceed 5 percent of the total equity of a company. Some observers claim that the ability of Japanese banks to hold equity gives an additional means of avoiding price competition in the loan market, because banks may purchase equity shares at nonmarket prices, instead of lowering loan rates.

As mentioned earlier, some observers argue that administrative guidance is so pervasive in Japan that substantial nonstatutory regulations on Japanese banks make total Japanese regulation stricter than that in the United States. To be sure, Japanese banks are supervised closely by the Ministry of Finance and the Bank of Japan.

But we are concerned here not with nuisance regulation, but with regulations which influence the competitiveness of banks in retail markets, particularly the markets for bank deposits. Our proposition is that regulation in the U.S. limits competition in the retail markets substantially, but in Japan it does not.

In Japan, there are two kinds of administrative guidance related to competition in retail markets. One is repeated warnings by the Ministry of Finance on some banking practices which are considered "excessively" competitive in collection of deposits. The other is supervision and examination to prevent unsound loans made primarily to obtain compensating deposits from borrowers. In Japan, guidance is imposed to attenuate "opportunism" rather than to restrict competition. The details of evidence in favor of our proposition are as follows:

(1) Administrative guidance on deposit collections is typically conducted against such practices as (a) deposit drives to commemorate openings of new branches, decennials of foundings of banks, or changes in management; (b) imposition of de facto quotas or too-ambitious deposit targets for branches. Neither of these practices exists in the United States or in any other country. Even if the Ministry of Finance succeeds in repressing these practices, which is quite doubtful, it would perhaps result in change of mode of competition rather than in reduction of the amount of competition.

(2) Regulatory authorities in the United States are charged with assuring the soundness of bank portfolios. But there seems little evidence that Japanese banks are forced to be more risk averse than their U.S. counterparts. On the contrary, Japanese banks seem to be less risk averse than U.S. banks, due to socialization of risk described elsewhere.

C. INVESTMENT BANKING

In the idealized world of economic theory, bond markets are normally assumed perfectly competitive. Walrasian auctioneers oversee competitive bidding, but have no control over price. This idealized, perfectly competitive model lies behind most criticism of Japanese bond markets as controlled or uncompetitive. It is normally alleged that dominance of indirect financing in Japan has made it very difficult to make the system more competitive.

But is it really true that predominance of direct financing makes a financial system unambiguously more competitive? Let us examine the case of the United States which is supposed to be more "advanced" in direct financing.

First, some 30 percent of corporate bonds are privately placed in the U.S.; interest rates, other terms of contract and amounts of issue are determined bilaterally between the bond issuer and the investor (most commonly life insurance companies). In substance, this is very close to bilateral, negotiated loans, and in recent years, such private placements have been growing markedly.

Second, even public placements are underwritten by investment bankers, and the process of underwriting is far from the ideal of Walrasian auctions. Lead managers of an underwriting syndicate negotiate with the company seeking new capital, and assist in preparation of issues. The manager then allocates the total issue among participating underwriters who, in turn, distribute bonds either to

other investment houses or to final investors. The process *could* be highly monopolistic, and investment banks were once sued by the Department of Justice for monopoly and manipulating markets. But the courts dismissed these charges, determining that syndicate practices are "a normal development dictated by need." Underwriting syndication, like loan syndication, emerged from the need to pool and diversify risks efficiently, although both practices smack of manipulating the market.

In these bond issues, a crucial role is played by the managers. They originate the issue, negotiate with the issuer on amount and terms, and choose investment banks to join the syndicate. It is a consensus among observers of investment banking that close relations of issuer and manager are essential for successful management of an issue. Usually the same investment banks serve as managers for a company over many years and for every type of issue. The managers have full knowledge of the financial and managerial strengths and weaknesses of the issuing company, and participating investment banks rely most on managers' assessments of the company in deciding whether to join a syndication. Of course, each investment bank may disagree with the managers and leave a syndicate. But for competitive issues, managed by influential investment banks, participants usually stay. Even if the participants incur short term losses on a particular issue, their records of loyalty lead to long term advantage. Moreover, the issuing company itself relies on the judgment of managers about current and future bond market conditions. These judgments help determine the amount and terms of issue. The managers take responsibility for maintenance of market strength for the issue afterward, and assume risks if their judgment turns out wrong.

We can summarize the above procedure as follows: (1) The managers determine how much, how long, and at what price to raise money for the company after negotiation. Credit-worthiness of the company and the current and future capital market conditions perceived by managers are the two critical factors. (2) The managers collect money by forming a syndicate. Their ability to collect depends on their prestige as experts in analyzing the credit-worthiness of companies, and on current future capital market conditions. The managers assume the largest risks, though each participant in the syndicate assumes underwriting risks in case it cannot sell its share of the bonds.

The first of the above procedures is very similar to making an ordinary loan. Banks negotiate with borrowing companies about the amount and terms of loans, based on knowledge of credit-worthiness and capital market conditions. But even the second of the above procedures is also very close to that of bank loans. The lead managers essentially act as financial intermediaries collecting funds from bond buyers and lending them to issuers. The major difference between bond underwriting and commercial bank intermediation seems to be not in the nature of the intermediaries, but in the nature of the funds attracted. There are different kinds of intermediation technology to distribute risk. So far we have no reason to judge which technology is more efficient or competitive.

Table XVII shows the different structure of corporate bond holdings in the United States and Japan. In the United States, the main holders are life insurance companies and pension funds. These funds,

accumulated by institutional investors, are what supported the development of U.S. bond markets. But in Japan, the dominant bond holders are commercial banks. Underlying this phenomenon is the fact that 65 percent of Japanese financial assets (excluding trade credits) held by the nonfinancial sector take the form of deposits. In the United States only 40 percent are held as deposits. It is only natural that Japanese bond markets not flourish if these financial institutions—and particularly banks—themselves can convert deposits into long-term loans.

D. THE ROLE OF LONG-TERM CREDIT BANKS IN JAPAN

Long-term credit banks play a unique and very important role in the Japanese market. First, since long term credit banks can float debentures, they are conceptually similar to U.S. investment banks. Proponents of direct financing in Japan have criticized long term credit banks very harshly, precisely because they displace nonfinancial firms in bond markets. However, as long as this substitution is efficient, there is no reason to criticize. Second, long term credit banks have also shared, with securities houses, the role of bond market underwriter for nonfinancial firms. This is quite natural since the distinction between long term loans and underwriting of bonds is hazy. Let us consider both these points in more detail.

TABLE XVII.—HOLDERS OF OUTSTANDING CORPORATE BONDS UNITED STATES AND JAPAN

	Holdings (millions)	Percent- age of total out- standing		Holdings (billions)	Percent- age of total out- standing
UNITED STATES (DEC. 31, 1978)			JAPAN (DEC. 31, 1978)		
Life insurance companies.....	\$158,480	37.6	Insurance companies.....	¥311	3.9
Other insurance companies.....	21,358	5.1	Trust accounts.....	1 134	14.3
Pension funds:			Households.....	1 839	23.1
State and local government			Commercial and long-term credit		
retirement funds.....	81,427	19.3	banks.....	1 880	23.6
Private pension funds.....	47,984	11.4	Other depository institutions.....	2 208	27.7
Households.....	64,825	15.4	Others.....	585	7.5
Commercial banks.....	7,417	1.8			
Mutual savings banks.....	21,566	5.1	Total.....	7 957	100.0
Foreign holdings.....	10 612	2.5			
Others.....	8 330	2.0			
Total.....	421 999	100.0			

Source: "Flow of Funds Accounts."

There is a functional differentiation between long term credit banks and regular commercial banks. On the asset side, the credit banks are largely restricted to long term lending. Short term loans (for no more than 6 months) are allowed only if they do not exceed the amount of deposits. On the liability side, long term credit banks are permitted to issue debentures, but are not allowed to receive deposits from the public. They can, however, accept deposits from government and borrowers, but most funds come from debentures. (See Table XVIII.) Their debentures are of two types, 5 year notes paying interest semiannually, and 1 year discount notes. We should note also that a large proportion of 5 year debentures are held by commercial banks.

(See Table XIX.) This accomplishes liquidity transformation, yet also encourages sharing the risks of long-term lending.

Bank debentures amount to 20 percent of total bonds outstanding in Japan, and as much as 2.6 times total corporate bonds. In other words, a much larger share of the bond market is funds further intermediated by long term credit banks. Although Japanese advocates of direct financing call the operation redundant, this risk pooling is the essence of financial intermediation. The question of relative efficiency of the U.S. investment bank system versus the Japanese long term credit bank system is one to which there seems no general answer.

TABLE XVIII.—SOURCES OF FUNDS OF LONG-TERM CREDIT BANKS, SEPTEMBER 1980

	Japan	
	Amount (billions)	Percentage of total liabilities and net worth
Deposits.....	¥3,334	12.8
CD's.....	140	.5
Bank debentures.....	17,919	68.8
Total liabilities and net worth.....	26,061	

TABLE XIX.—HOLDERS OF BANK DEBENTURES (JAPAN), DEC. 31, 1977

	Total holdings (millions)	Percentage of total outstanding
Households.....	¥98,358	49.0
Commercial banks.....	32,024	16.0
Other depository institutions.....	29,531	14.7
Trust accounts.....	6,237	3.1
Insurance companies.....	8,996	4.5
Public financial institutions.....	12,762	6.4
Other.....	12,658	6.3
Total.....	200,566	100.0

Source: "Flow of Funds Account p. 36," op. cit.

The Japanese bond market also has a unique feature called "commissioned underwriting," in which banks act as "commissioned companies" and securities companies act as underwriters. A commissioned company serves as (a) financial adviser to the issuer about methods of flotation amount, timing, and terms of issue; (b) coordinator for the negotiations about these matters; and (c) agent for execution of necessary procedures such as preparation of related contracts and forms, receiving and delivering proceeds, and delivering certificates. The role of securities companies is confined to underwriting in the strict sense, i.e., ensuring that the issuer obtains the amount of funds it requires in the event of undersubscription.

Thus, the functions performed by investment banks in the United States are undertaken in Japan jointly by banks and securities companies. Before World War II these investment banking functions were mainly performed by banks. But since the Securities and Exchange Law of 1948 prohibited banks from underwriting corporate bonds, this system of commissioned companies evolved. In other

words, even after the prohibition of bank underwriting by law, banks performed investment banking functions except for underwriting in the very strict sense of the word.

Some proponents of direct financing, particularly those who advocate a more important role for securities companies in bond markets, believe that bank participation in underwriting symbolizes the "backwardness" of Japanese financial structure. But given the similarity of function of banks in Japan in making long term loans and that of investment banks in the United States in corporate bond issues, Japanese banks are very natural candidates for originators of bond issues. They have knowledge and experience in appraising long-term-credit worthiness of companies. Experience and know-how of commercial and long term banks in making long term loans are what make them dominant in the bond market. Arguing, as some analysts have, that bank dominance in bond markets is due to controls does not seem to be supported by the evidence.

SECTION V

Government has various functions in financial markets, most significant of which are (1) issuing national debt, (2) regulation of markets through restrictions and taxes, (3) financial intermediation through public financial institutions, and (4) formulation and implementation of monetary policy. Depending on history, emphasis is placed on different aspects of these functions.

In the postwar Japanese economy, the role of government as issuer of national debt was relatively small until the late 1970's, unless one includes postal savings as part of national debt. Past literature on Japanese financial markets has focused attention on the interrelationship between regulations and monetary policy. In particular, "low interest rate policy" has been regarded as pivotal.¹ That is, the government allegedly fixed market interest rates below the equilibrium rate so that credit rationing became a common feature of financial transactions. "Low interest rate policy" thus conceived is distinct from expansive monetary policy, in that direct regulations on interest rates are an integral part of the former.

Two aspects of interest rate regulation in Japan are given primary emphasis. One is the setting of the central bank's discount rate below the corresponding call rate (interbank rate on borrowed reserves), which is considered a market determined equilibrium rate. The Bank of Japan rations credit mainly among the city banks (the 13 largest commercial banks). As long as the call rate exceeds the discount rate, a change in the discount rate affects the position of the demand curve for call market loans. Thus, control of the retail loan market is assured. The second aspect is restriction on the ceiling rate on retail loans, either through statutory regulation based on the Temporary Interest Rate Coordination Act of 1947, or by administrative guidance.

The first of the two, however, is not uniquely Japanese. It is widely recognized in the United States that the Federal Reserve rations credit at its discount window.² Moreover, a positive spread of the short-term market rate over the discount rate is common to most continental European countries.³ It seems that unless the central bank explicitly pegs the discount rate to the market rate, and discounts all eligible bills at that rate, credit rationing is a common feature of central bank discounting in every country. Indeed, if "low interest rate policy" is defined as rationing of central bank discounts, there is nothing uniquely Japanese about it.

¹ See, for example, R. Komiya "Effectiveness of Japanese Monetary Policy," in R. Komiya, *Analyses of Contemporary Japanese Economy* (in Japanese). Tokyo University Press, 1975. S. Rohyama, "Japanese Supply of Money and Monetary Policy" in K. Kaizuka (ed.) *Monetary Policy* (in Japanese). Nihon Keizai Shimbun Sha, 1972.

² See, for example, J. O. Light and W. L. White, *The Financial System*, Richard D. Irwin, Inc., 1970, pp. 226-258.

³ See, for example, OECD, Monetary Studies Series, *The Role of Monetary Policy in Demand Management, The Experience of Six Major Countries*, 1975.

Therefore, the existence of a unique Japanese "low interest rate policy" hinges on whether ceiling rates on loans have been binding. K. Hamada⁴ has argued the ceiling rate was binding by showing that a significant proportion of loans are made at the ceiling rate. On the other hand, many practitioners have maintained that these restrictions were not binding. More recently, I. Kuroda⁵ has criticized Hamada's statistical procedures, and has emphasized the equilibrium nature of loan markets. Kuroda showed that a standard term structure relationship exists in Japan between long term loan rates and short term open market rates, and thus that effective arbitrage exists. At the heart of the controversy lie complex institutional characteristics of loan markets which were often neglected by analysts. Specifically, many loans which are formally classified as short term are automatically rolled over, and correct use of data requires such loans be classified as long term.⁶ When proper demarcation of short term and long term loans is made, the case for a corner solution or stickiness of the loan rate is weakened. Although the controversy is still unsettled, Kuroda's view is more consistent with that of practitioners. Moreover, given the high degree of competition prevailing in the retail markets, it seems unrealistic to assume that banks agree on a ceiling rate.

It is not the purpose of this article to draw a definitive conclusion on the "low interest rate policy" proposition. However, it seems safe to conclude that the case against it is strong enough to suspect its relevance as the central feature of government involvement in the postwar Japanese financial market.

Our proposition on the role of the Japanese Government during the postwar period can be summarized as follows: (1) the Japanese Government acted more as financial intermediary than as borrower or regulator; and (2) the Government acted as financial intermediary in two major ways; first through public financial intermediaries, and second through monetary policies that were a variant of the real bills doctrine. Each of these two functions will be discussed in detail.

A. THE GOVERNMENT AS INTERMEDIARY

Direct intermediation has been carried out by government through the post office and the Fiscal Investment and Loan Program (FILP). The post office is one of the oldest of Japan's modern financial intermediaries, and its history begins in 1875. The National Banking Act had been enacted only 2 years earlier, so the post office can be said to be one of the foundations of the Japanese financial market.

Post office funds (deposits, insurance premiums, and pension payments) are entrusted to the Portfolio Management Department⁷ (*Shikin Unyobu*) of the Ministry of Finance. The PMD receives funds from national pension funds, from surplus funds of special accounts of

⁴ K. Hamada, Y. Ishiyama, and K. Iwata "Structures of Japanese Loan Markets—Loan Rates of City and Local Banks" *Keizai Bunseki* (in Japanese), Economic Planning Agency, March 1976.

⁵ Iwao Kuroda, "On the Determination of Japanese Loan Rate—Reexamination of the Conventional View and a New Perspective," *Kinyu Kenkyu Shiryo* 2, Bank of Japan, 1979.

⁶ Kuroda, *op. cit.*

⁷ The Portfolio Management Department was called Deposit Department or Yokinbu—in the prewar period. After 1952, post office pension and insurance funds have been managed outside from the Portfolio Management Department.

There are various translations of "*Shikin Unyobu*," the official one being "Trust Fund Bureau." But there is no formal bureau in the Ministry of Finance to handle the postal savings funds. "Portfolio Management Department" more exactly translates the nature—as well as the title—of the institution.

the Government, and from public corporations. A history of liabilities and assets of the PMD is given in Table XX. As can be seen from the table, post office funds have always been more than half of total liabilities. The bulk of the pension funds in Japan are administered by the Government, and accumulated funds from two of these major public pension plans are deposited with the PMD.⁸

On the asset side, it is quite clear that, until the early 1950's the bulk of funds were allocated to central and local governments. In particular, at the end of World War II, 69 percent of the funds were held in the form of government bonds. Postal savings, in this case, were nothing but small denomination government savings bonds. However, as the burden of the national debt became lighter due to the inflation of the late forties, and as a balanced budget rule for the central government was adopted in 1949, an increasing portion of the funds were allocated to loans to public corporations, including public financial intermediaries.

⁸ As of 1980, the four major categories of pensions are as follows: the Welfare Program for employees of private corporations; the National Pensions for any citizens; the Corporate Pension for employees of government and public corporations; and Private Pensions. Accumulated funds for Welfare and National Pensions are deposited with the Department.

TABLE XX.—SOURCES AND USE OF FUNDS FOR PORTFOLIO MANAGEMENT DEPARTMENT
[End of fiscal year, Mar. 31]

	1909		1924		1935		1945		1955	
	Million yen	Percent of total	Million yen	Percent of total	Million yen	Percent of total	Billion yen	Percent of total	Billion yen	Percent of total
Sources:										
Postal savings.....	112.0	52.8	1,159.0	65.0	3,247.0	72.6	54.2	82.4	533.5	59.2
Savings bond.....	19	9.0	53	3.0	75	1.7	2.5	3.8	4	0
Postal insurance and pensions.....			67	3.7	152	3.4	3.1	4.7	128.9	14.3
Welfare pension.....							1.3	2.0	142.0	15.8
National pension.....										
Others.....	82	38.2	505	28.3	997	22.3	4.7	7.1	96.4	10.7
Total.....	212	100.0	1,784	100.0	4,471	100.0	65.8	100.0	901.2	100.0
Uses:										
National bonds.....	121	57.1	306	17.2	1,790	40.0	45.5	69.1	44.6	4.9
General and special account.....			238	13.3	103	2.3	1.3	2.0	19.7	2.2
Local government.....			226	12.7	1,178	26.3	3.2	4.9	364.9	40.5
Specialized banks.....	23	10.8	624	35.0	1,051	23.5	7.7	11.7	4	0
Government agencies.....									301.3	33.5
Public corporations.....									5.1	0.6
Others.....	68	32.1	390	21.8	349	7.9	8.1	12.3	165.2	18.3
Total.....	212.0	100.0	1,784.0	100.0	4,471.0	100.0	65.8	100.0	901.2	100.9
Total as percent of GNP.....	5.3		11.4		24.3		13.9		10.4	

	1960		1965		1970		1975		1978	
	Billion yen	Percent of total	Billion yen	Percent of total	Billion yen	Percent of total	Billion yen	Percent of total	Billion yen	Percent of total
Sources:										
Postal savings.....	1,117.6	53.8	2,673.3	52.9	7,675.7	52.5	24,198.6	56.5	44,462.7	59.8
Savings bond.....	141.8	6.8	89.9	1.8	340.1	2.4	1,092.2	2.5	1,534.0	2.1
Postal insurance and pensions.....	450.4	21.7	1,406.2	27.8	4,353.5	29.7	12,097.6	28.3	20,773.5	27.9
Welfare pension.....			138.4	3.7	717.2	4.9	1,798.2	4.2	1,871.6	2.5
National pension.....			696.3	13.8	1,543.2	10.5	362.3	8.5	5,745.8	7.7
Others.....	368.3	17.7								
Total	2,078.1	100.0	5,053.9	100.0	14,629.7	100.0	42,809.6	100.0	74,387.6	100.0
Uses:										
National bonds.....	310.2	14.9	499.9	9.9	1,715.5	11.7	4,219.0	9.9	11,242.5	15.1
General and special account.....	42.0	2.0	198.5	3.9	504.6	3.5	2,680.1	6.3	7,786.7	10.5
Local government.....	478.9	23.0	1,040.3	20.6	2,040.7	13.9	6,779.2	15.8	10,069.4	13.5
Specialized banks.....	1	0								
Government agencies.....	807.9	38.9	2,429.6	48.1	7,333.1	50.1	20,764.5	48.5	32,240.1	43.3
Public corporations.....	87.0	4.2	555.2	11.0	2,207.2	15.1	7,008.9	16.4	11,633.3	15.6
Others.....	352.2	17.0	330.4	6.5	830.2	5.7	1,359.9	3.1	1,415.6	2.0
Total	2,078.1	100.0	5,053.9	100.0	14,629.7	100.0	42,809.6	100.0	74,387.6	100.0
Total as percent of GNP	13.4		15.9		20.6		28.7		36.6	

Source: W. Ishikawa and T. Gyoten (ed.) Zaisei Toyushi (in Japanese) Kinyu Zaisei Jigyo Kenkyukai, 1972 and "Monthly Statistics on Fiscal and Financial Matters" (in Japanese), Ministry of Finance, July 1979.

The portion of PMD funds allocated to loans and investment are used as sources for FILP. (But FILP has other sources too, e.g., funds raised from government guaranteed borrowings of public corporations and funds of the Special Account for Industrial Investments.)⁹ FILP is compiled in flows, and as of 1979 the PMD contributed 82.7 percent of the total.¹⁰ Table XXI gives composition of FILP between investments and loans throughout the postwar period. Approximately half of the program funds have been earmarked for further financial intermediation. Table XXII gives functional composition of these loans for various purposes, while Table XXIII gives names of major public financial intermediaries and their shares in FILP.

TABLE XXI.—FISCAL INVESTMENTS AND LOANS PROGRAM (BUDGET FIGURE)

	Investments		Loans		Total		Percentage ratio to GNP
	Billion yen	Percent of total	Billion yen	Percent of total	Billion yen	Percent to total	
Fiscal year:							
1953.....	170.7	52.9	152.1	47.1	332.8	100	4.6
1955.....	205.4	63.8	116.5	36.2	321.9	100	3.7
1960.....	376.3	62.0	230.6	38.0	606.9	100	3.9
1965.....	895.4	55.3	725.2	44.7	1,620.6	100	5.1
1970.....	1,825.5	51.0	1,754.4	49.0	3,579.9	100	4.7
1975.....	4,835.4	51.9	4,474.6	48.1	9,310.0	100	6.1
1978.....	6,940.4	46.6	7,947.1	53.4	14,887.6	100	7.1

Source: W. Ishikawa and T. Gyoten (ed.) op. cit. and "Monthly Statistics on Fiscal and Financial Matters" (in Japanese), Ministry of Finance, July 1979.

TABLE XXII.—FUNCTIONAL COMPOSITION OF FISCAL LOANS AMONG VARIOUS USES (BUDGET FIGURE)

[Percentage of total]

	Mortgage	Small to medium industry	Agriculture and fishery	Trade	Regional development	Social development	Industrial development	Total
Fiscal year:								
1953.....	10.3	23.9	12.3	12.2	5.1	0.6	41.3	100
1960.....	9.2	44.5	11.5	16.0	6.0	1.6	13.1	100
1965.....	13.2	39.0	10.6	17.7	5.4	5.5	11.6	100
1970.....	14.1	39.7	8.3	18.2	6.8	7.5	8.8	100
1975.....	20.5	36.8	5.9	15.4	6.5	8.1	7.1	100
1976.....	20.4	37.6	5.8	15.7	6.1	7.8	5.9	100
1977.....	21.0	38.1	5.6	15.8	6.1	7.8	5.6	100

Source: W. Ishikawa and T. Gyoten (ed.) op. cit. The reader is referred to the source for precise definition of each category.

⁹ The Special Account for Industrial Investment was established in 1953, funded by U.S. aid and some special government debts. Its size has dwindled continuously and constitutes less than 1 percent of FILP at the moment.

¹⁰ For the details of FILP, the reader is referred to, for example, I. Ishikawa and T. Gyoten (ed.), *Fiscal Investments and Loans* (in Japanese), Kinyu Zaisei Jijo Kenkyukai, 1977.

TABLE XXIII-1.—PUBLIC FINANCIAL INTERMEDIARIES UNDER FISCAL INVESTMENT AND LOAN PROGRAMS (FILP)—SHARES AND THEIR FUNCTIONS

[In 1979 budget]

	Amounts allocated by FILP		Total new loans		Major functions
	Billion yen	Share of total	Billion yen	Share of total	
Special account: Special account for urban development financing.	29.7	0.3	31.0	0.2	Loans to purchase urban land after the evacuation of factories.
Banks, corporations:					
Housing Loan Corp.	2,784.5	28.4	2,998.3	20.9	Mortgage loans.
Medical Care Facility Finance Corp.	90.9	.9	103.7	.7	Loans to construct private hospitals.
People's Finance Corp.	1,345.0	13.7	2,432.3	17.0	Loans to small business.
Small Business Finance Corp.	1,196.0	12.2	1,673.7	11.7	Long-term loans to small business.
Environmental Sanitation Business Finance Corp.	266.8	2.7	291.0	2.0	Loans for equipment of small shops.
Agriculture, Forestry, and Fishery Finance Corp.	550.0	5.7	648.3	4.5	Agricultural, forestry and fishery loans.
Finance Corp. for Local Public Enterprises.	850.8	8.7	1,037.1	7.2	Loans to local governments.
Hokkaido and Tohoku Development Corp.	123.4	1.3	162.0	1.1	Loans for the development of Hokkaido and Tohoku area.
Okinawa Development Finance Corp.	104.3	1.1	131.8	.9	Loans for development of Okinawa area.
Japan Development Bank	643.5	6.6	970.0	6.8	Industrial loans.
Japan Export and Import Bank	820.0	8.4	1,445.0	10.1	Trade credits and overseas investment credits.
Others:					
Pension Welfare Service Public Corp.	399.8	4.1	463.1	3.2	Loans for the construction of facilities for pension fund participants.
Employment Promotion Projects Corp.	5.0	.1	75.8	.5	Loans for housing to promote employment.
Public Nuisance Prevention Corp.	45.0	.5	73.2	.5	Loans for antipollution facilities.
Shipbuilding Kodan ¹	19.7	.2	33.3	.2	Loans for shipbuilding.
Regional Promotion and Facilities Corp.	41.2	.4	80.7	.6	Loans for the relocation of manufacturing and mining facilities.
Foundation for Promoting Social Welfare Agencies, Inc.	28.8	.3	30.2	.2	Loans for the construction of welfare facilities.
Labor Welfare Corp.	12.0	.1	14.6	.1	Loans for labor hazard prevention facilities.
Japan Private School Promotional Foundation.	58.7	.6	79.7	.5	Loans to construct private schools.
Small Business Promotion Corp.	16.4	.2	152.6	1.1	Loans to small business.
Metallic Minerals Prospecting Finance Corp.	19.9	.5	66.1	.5	Loans for metal prospecting and stocking of natural resources.
Japan Petroleum Development Corp.	48.9	.5	414.9	2.9	Loans for oil drilling and oil storage.
Overseas Economic Corp. Fund	230.1	2.3	370.0	2.6	Loans to developing countries.
Bank for Commercial and Industrial Corp.	75.0	.8	530.0	3.7	Loans to small business corporations.
Total	9,805.4	100.0	14,308.4	100.0	

¹ Kodan means public enterprise in Japanese.

Source: "Monthly Statistics on Fiscal and Financial Matters" (in Japanese), Ministry of Finance, July 1979.

As can be seen from these tables, functions of these public intermediaries are diverse, and the role of FILP has undergone substantial transformation during the period. In the fifties and early sixties, emphasis was on big industrial projects, trade finance, and some financing of small to medium sized corporations; mortgage financing and social development increased in significance only in recent years. However, compared to the United States, where public financial intermediation has largely been restricted to agriculture and housing, the Japanese Government still plays a much more significant role than its U.S. counterpart in supplying funds for industrial plant and equipment.

But "off-budget" financing is by no means uniquely Japanese. It is argued quite persuasively by B. Friedman,¹¹ for example, that the rapid growth of "off-budget" public credit agencies is one of the major characteristics in postwar evolution of U.S. financial markets. As a ratio to GNP, assets of U.S. sponsored credit agencies and mortgage pools have increased from 1.0 percent during 1946-50 to 8.0 percent in 1976-78.¹² Despite such proliferation, the recent U.S. figure falls far short of the Japanese counterpart, 37.9 percent of GNP for 1976-78. Indeed, both in aggregate and in breadth of distribution, Japanese public financial intermediation has been much more extensive than that in the United States.

Table XXIV gives the ratios of various forms of financing for industrial equipment of Japanese corporations during the postwar period. As can be seen from the table, fiscal funds comprised a major proportion of new equipment funds throughout the period, although their share has gradually declined. Their share was particularly large in the fifties, and especially for major strategic industries, electricity, shipping, coal, and steel.

But as argued earlier, looking only at the level of such intermediation seriously underestimates its significance. If even 10 percent of new equipment funds comes from public sector intermediaries, private intermediaries feel much more secure in extending large loans, since, in these cases, the government is assuming default risk. Thus, public financial intermediation acts as a catalyst to channel large amounts of funds to specific directions.¹³

This does not mean, however, that the Government did as it pleased with industry. Funds could not be channeled to sectors where expected returns were low. Private financial institutions simply would not lend to such sectors, even if the Government did assume a substantial portion of the default risk. However, in cases where both expected returns and risk were high, the involvement of public entities could be quite significant. For gigantic projects, participation of a public financial intermediary as well as a long-term credit bank was often an integral part of the formation of loan consortia. Indeed, had it not been for public financial intermediation, basic industries such as energy, steel, shipping and petrochemicals would not have developed so smoothly.

¹¹ B. Friedman, *op. cit.*

¹² See Table 22, of B. Friedman, *op. cit.*

¹³ OECD, *The Industrial Policy of Japan*, Paris, 1972. W. V. Rapp, "Japan's Industrial Policy," in Isaiah Frank (ed.), *The Japanese Economy in International Perspective*, Johns Hopkins University Press, 1975.

TABLE XXIV.—SUPPLY OF NEW FUNDS FOR PLANTS AND EQUIPMENT

[Billions of yen/(percentage of total); fiscal years]

	1952-55		1956-60		1961-65		1966-70		1971-75		1976-80	
	Total industry	4 major industries	Total industry	4 major industries	Total industry	4 major industries	Total industry	4 major industries	Total industry	4 major industries	Total industry	4 major industries
Securities.....	217.3 (11.9)	55.0 (6.5)	1,410.1 (21.6)	578.8 (24.9)	2,872.5 (17.8)	810.5 (25.1)	3,904.6 (11.2)	810.5 (25.1)	9,434.8 (12.2)	2,601.5 (12.0)	2,601.5 (12.0)	2,601.5 (12.0)
Equities.....	182.4 (10.0)	40.7 (4.8)	996.5 (15.3)	379.0 (16.3)	2,094.5 (13.0)	486.0 (15.0)	2,094.5 (13.0)	486.0 (15.0)	3,599.1 (4.6)	1,788.7 (3.7)	1,788.7 (3.7)	1,788.7 (3.7)
Bonds.....	34.9 (1.9)	14.3 (1.7)	413.6 (6.3)	199.8 (8.6)	778.0 (4.8)	324.5 (10.0)	1,809.1 (5.9)	324.5 (10.0)	5,835.7 (7.5)	1,809.1 (4.6)	1,809.1 (4.6)	1,809.1 (4.6)
Private financial intermediation.....	1,096.6 (59.8)	473.2 (51.3)	3,958.0 (60.7)	1,250.1 (53.8)	10,681.7 (66.4)	1,707.8 (52.8)	25,783.8 (73.7)	1,707.8 (52.8)	57,564.1 (74.2)	14,963.4 (69.3)	14,963.4 (69.3)	14,963.4 (69.3)
Banks.....	711.7 (38.8)	392.5 (46.7)	2,230.6 (34.2)	835.9 (36.0)	4,971.0 (30.9)	944.2 (29.2)	16,965.3 (48.5)	944.2 (29.2)	39,144.4 (50.4)	9,388.4 (43.5)	9,388.4 (43.5)	9,388.4 (43.5)
Others.....	384.9 (21.0)	80.7 (9.6)	1,727.4 (26.5)	414.2 (17.8)	5,710.7 (35.5)	763.6 (23.6)	8,818.5 (25.2)	763.6 (23.6)	18,419.7 (23.7)	5,575.0 (25.8)	5,575.0 (25.8)	5,575.0 (25.8)
Public financial intermediation.....	519.6 (28.3)	312.6 (37.2)	1,150.2 (17.7)	494.9 (21.3)	2,540.4 (15.8)	715.6 (22.1)	5,282.1 (15.1)	715.6 (22.1)	10,597.8 (13.7)	4,026.1 (18.6)	4,026.1 (18.6)	4,026.1 (18.6)
Japan Development Bank.....	244.1 (13.3)	202.6 (24.1)	299.9 (4.6)	241.5 (10.4)	672.6 (4.2)	391.6 (12.1)	1,362.9 (3.9)	391.6 (12.1)	2,825.8 (3.6)	948.9 (4.4)	948.9 (4.4)	948.9 (4.4)
Others.....	275.5 (15.0)	110.0 (13.1)	850.3 (13.1)	253.4 (10.9)	1,867.8 (11.6)	324.0 (10.0)	3,919.2 (11.2)	324.0 (10.0)	7,772.0 (10.0)	3,077.2 (14.2)	3,077.2 (14.2)	3,077.2 (14.2)
Total.....	1,833.5 (100.0)	840.8 (100.0)	6,518.3 (100.0)	2,323.8 (100.0)	16,094.4 (100.0)	3,233.9 (100.0)	34,971.5 (100.0)	3,233.9 (100.0)	77,597.6 (100.0)	21,591.2 (100.0)	21,591.2 (100.0)	21,591.2 (100.0)

1 Electricity, shipping, coal and steel.

Source: W. Ishikawa and T. Gyoten (ed.) op. cit.

B. THE EVOLUTION OF MONETARY POLICY

Finally, we briefly discuss the evolution of Japanese monetary policy during the postwar period. The issue is one of the most important aspects of government involvement in financial markets, and one much analyzed. In fact, monetary policy issues have always been given primary emphasis in analysis of Japanese financial markets.

Indeed, monetary policy is a central issue in analyzing the interactions between financial markets and the nonfinancial economy. Although construction of models or their estimation is beyond the scope of this essay, we intend to shed some light on the patterns of interaction which need to be emphasized in construction of such models. Quantitative analyses of Japanese financial markets have in the past been unduly restricted to a specific class of models. These models ignored some fundamental aspects of the Japanese financial regime and resulted in some unfortunate biases.

We can ascribe the analytical slant—and potential source of misspecification—in past monetary models to two major assumptions. The first is their perception of controls. As long as currency is *not* backed by gold (or other commodities), and as long as the Government *does* act as a lender of last resort, some controls on supply of money or credit are essential. Even strong advocates of *laissez-faire* such as strict quantity theorists accept controls on the money supply process. If the object is money, controls are considered not on *y* inevitable, but desirable.

But most Japanese literature on financial markets has been characterized by a predominantly negative attitude toward *Japanese* financial regulations, and almost always advocate liberalization. The implicit attitude is this: Japan's controls are imposed on credit rather than on money, and therefore transgress the presumption that *laissez-faire* be pursued in all areas other than money. Regulations such as reserve requirements on deposits and an arbitrarily controlled supply of money are accepted as legitimate, but control on bank loans is not.

But this position is not tenable. Every balance sheet, including that of the monetary authority, has two sides. To say that a central bank should control its level of total liabilities (high powered money) and forget about its assets (credit) is to ignore the most basic of accounting identities, as well as to ignore the inherent simultaneity of any system of interlocking balance sheets. As persuasively argued by Modigliani,¹⁴ Japanese and continental European financial regimes can be described in a credit paradigm, in contrast to the money paradigm in the United States and the United Kingdom. Control on bank loans in a credit paradigm is logically equivalent to control of money supply in a money paradigm. To argue credit controls illegitimate in Japan is tantamount to arguing money supply controls illegitimate in the United States. The attitude that the Japanese system is a control regime, as against a free regime in the United States, is logically unfounded. The question is not one of control versus markets, but rather of different types of control in different institutional settings.

The second potential source of misspecification in monetary models of Japan is the perception that Japanese financial institutions render no services of their own to the economy. This is a natural consequence

¹⁴ Franco Modigliani, "Monetary Mechanism Revisited and Its Relations With the Financial Structure" (mimeo), November 1980.

of adopting the money paradigm, which treats financial intermediaries as distributors of money.¹⁵ Such transactions as accepting deposits or making loans are seen only as a method of transforming central bank liabilities into money. The perspective may be effective in analyzing the United States or the United Kingdom, but not Japan. In the latter, demand deposits are mostly an asset, not money for transactions. Validity of the Baumol-Tobin¹⁶ argument is restricted to currency in Japan. Use of M_1 and M_2 in analysis of Japan requires replacing the money paradigm by a credit paradigm, and this recognition should be reflected in other assumptions of the model.

How very much the Japanese system is a credit paradigm system can be seen in the Bank of Japan's balance sheet. As seen in Table XXV, a substantial portion of the Bank of Japan's assets is still credit to commercial banks, although the importance of such credit has declined substantially in recent years. The phenomenon of high credit granted to banks has been called "overloan,"¹⁷ and generally has been considered unsound and anomalous. However, if one uses the framework of the real bills doctrine, in which the central bank passively discounts paper generated by real private demand, such behavior by the Bank of Japan is only natural. In the words of Sargent and Wallace, the Bank of Japan can be thought to have lent to commercial banks "in a way that vitiates the restrictions against private intermediation."¹⁸ From the perspective of the real bills doctrine, as interpreted by Sargent and Wallace, the central bank is thought of as a financial intermediary (or guarantor) rather than as a supplier of money. Although it is not realistic to claim that the Bank of Japan followed the strict real bills doctrine during the postwar period, the characterization of the Bank of Japan as a financial intermediary provides a useful insight into Japanese monetary policy. Moreover, many Bank of Japan officials have maintained that they acted passively or had no option but to act passively in their rediscounting and lending operations.¹⁹ According to their view, the Bank of Japan followed a restricted variant of the real bills doctrine, rather than money supply controls.²⁰

¹⁵ T. J. Sargent and N. Wallace, "The Real Bills Doctrine Vs. The Quantity Theory," Staff Report No 14, University of Minnesota and Federal Reserve Bank of Minneapolis, January 1981.

¹⁶ W. Baumol, "The Transactions Demand for Cash: An Inventory Theoretic Approach," *Quarterly Journal of Economics*, November 1952. James Tobin, "The Interest-Elasticity of Transactions Demand for Cash," *Review of Economics and Statistics*, August 1956.

¹⁷ See, for example, Y. Suzuki, op. cit.

¹⁸ T. J. Sargent and N. Wallace, op. cit. "According to the real bills doctrine, unrestricted intermediation either by private banks or by a central bank has beneficial economic effects and should be promoted by public policy. The doctrine proposes that there be unrestricted discounting of real bills—evidence of indebtedness which, in accordance with Adam Smith's definition in *The Wealth of Nations*, are safe or free of default risk. As we interpret the doctrine, it asserts that one function of banks is to issue bank notes or similar liabilities that, because they are issued in small and standard denominations, are more easily held as assets by ultimate lenders than bills being discounted. The keystone of the doctrine is that no government regulations ought to restrict the scope of such intermediation. In particular, market forces can be relied on to prevent excessive 'credit creation' by private banks. Moreover, if there happen to exist regulations that inhibit private banks from issuing bearer notes and make the central bank a monopoly issuer of currency-like assets, the central bank ought to conduct open-market operations in private securities or operate a discount window in a way that vitiates the restrictions against private intermediation. The central bank can accomplish this by freely discounting paper for private banks or by lending directly. By doing this, it brings together borrowers and lenders who otherwise might not be matched because of the restriction against private intermediation."

¹⁹ See, for example, B. Kure, *Monetary Policy* (in Japanese), Toyo-Keizai Shimpo-Sha, Tokyo, 1973.

²⁰ For the United States, T. Sargent and N. Wallace, op. cit., note that "intermediation in the United States in the late 19th century was initiated by the North during the Civil War, at least in part as a way to enhance the demand for its liabilities at a time when it was experiencing a very large deficit. By the last quarter of the century, however, the problem was not how to finance a deficit, but more often, how to dispose of a surplus. Since the financial regulations in force were of no help in dealing with a surplus, it is not surprising that the real bills doctrine was influential at that time, influential enough so that features of it got reflected in the legislation that created the Federal Reserve System. Indeed, it is tempting to regard the creation of the Federal Reserve System as an attempt to implement a commodity-money version of our real bills discount window regime."

TABLE XXV.—ASSETS OF THE BANK OF JAPAN

[Billions of yen/(percent of total)]

End of year	Gold bullion	Cash	Bills discounted and loans	Loans to Government	Government bonds and other security	Foreign assets	Others	Total
1950.....	0.5 (0.1)	0.5 (0.1)	269.0 (52.7)	63.0 (12.3)	136.8 (26.2)	-----	40.7 (8.6)	510.5 (100)
1960.....	25.5 (1.8)	1.8 (0.1)	500.2 (34.8)	-----	569.1 (39.6)	308.7 (21.5)	30.4 (2.2)	1,435.7 (100)
1965.....	30.9 (1.0)	13.7 (0.4)	1,627.7 (51.6)	-----	1,087.2 (34.5)	371.4 (11.8)	22.0 (0.7)	3,152.9 (100)
1970.....	30.9 (0.5)	20.7 (0.3)	2,353.4 (36.6)	-----	2,824.6 (43.9)	1,123.3 (17.5)	76.2 (1.2)	6,429.1 (100)
Bills bought								
1975.....	30.9 (0.2)	84.8 (0.5)	1,777.3 (11.4)	2,323.7 (14.9)	7,605.4 (49.3)	3,506.1 (22.4)	205.4 (1.3)	15,623.6 (100)
1978.....	140.7 (0.7)	88.1 (0.4)	2,668.0 (12.8)	2,850.0 (13.6)	11,375.2 (54.4)	3,509.3 (16.8)	261.4 (1.3)	20,892.5 (100)
1979.....	140.5 (0.6)	71.5 (0.3)	2,442.2 (11.0)	3,550.0 (15.9)	13,307.8 (59.8)	2,490.9 (11.2)	262.4 (1.2)	22,265.3 (100)

Source: Bank of Japan, "Economic Statistics Annual," 1979.

The question of equity in lending remains. Both Bank of Japan loans and loans of commercial banks were restricted to a relatively small class of customers in the past, the former to commercial banks, and latter to relatively large and default free corporations. The discussion of fairness is a legitimate and interesting question, but needs to be separated from overall macroeconomic evaluation of Japanese monetary policy. Elimination of a certain class of customers from the market is a common feature of any financial system where default risk and transaction/information costs play crucial roles. Short of government intervention or guarantee for the less credit-worthy customers, any financial system tends to favor larger and more wealthy organizations and individuals. The Japanese private financial intermediaries are no exception, although a large number of public financial institutions have been established to subsidize medium to small corporations. Still, support for mortgage and consumer financing has been relatively meager, especially compared to that in the United States.

Depending upon value judgments, the poor performance of government efforts in some areas might be cited as a major defect of past Japanese financial policy; we do not necessarily disagree with such a viewpoint. But it is a completely different matter to argue that Japanese monetary policy has been control dominated. It is more useful to view the Japanese monetary process as one in which government's role as intermediary is extremely large in comparison to its other functions.

With regard to stabilization, Japanese monetary policy has been characterized by extremely swift and sensitive reaction to balance of payments developments. In fact, until the early 1970's, an established monetary rule was to tighten credit whenever the current account balance was in deficit. In addition to credit policy, the authorities often used window guidance²¹ to attempt to curtail bank loans

²¹ A. Horiuchi, "Effectiveness of 'Lending Window Operation' As a Restrictive Monetary Policy Measure," *Japanese Economic Studies*, winter, 1977-78. H. Eguchi, "Comments on Effectiveness of the Window Guidance," *Japanese Economic Studies*, winter, 1977-78.

directly. Although window guidance was sometimes heralded as a major policy instrument, it was actually only a supplementary tool. The Bank of Japan itself has said:

Window guidance is a supplemental tool to general monetary policy tools such as discount rate changes, rather than an independent weapon of monetary control. In other words, while these tools exert pressure on the market, window guidance is a tool that reinforces them from the side. Since window guidance functions only as a supplemental tool of monetary policy, it would not be sufficiently effective unless it is used hand in hand with powerful enforcement of more orthodox tools of monetary policy.²²

It is probably appropriate to say that lending policy, which changed the marginal cost of borrowing for commercial banks, was the major instrument of monetary stabilization, while all other instruments such as discount rate changes, reserve requirement changes, window guidance, and open market operations²³ were conducted simultaneously as supplements. It was precisely this simultaneous use of all possible instruments that was so effective in changing expectations of market agents.

The principal transmission mechanism is quite clear. The Bank of Japan, confronted with a balance of payments deficit or with inflation, would tighten supply of loans to commercial banks. This would raise marginal cost of borrowing for all financial institutions, which, in turn, would pass these costs into loan rates. Although the Bank of Japan normally accommodated relatively default free loans as much as possible, tightenings were very swift and strong whenever the established rule or public consensus dictated. Stabilization policy was very effective in almost all instances.

Although the heavy dependence of the private sector on bank loans was no doubt an important factor behind the effectiveness of stabilization policy, the quick and almost unanimous shift of expectations engineered by authorities was another significant element in the picture. Window guidance was particularly important in influencing such expectations. In short, tight credit pulled the loan supply curve leftward, and all other policies induced pessimistic expectations that pulled the loan demand curve leftward too.

SUMMARY

The importance of the Government in Japanese financial markets lies in its role as financial intermediary, through public financial intermediation and through Bank of Japan lending. This intermediation in financial markets is quite analogous to the government role in other areas. It seems to the authors that the general nature of the Japanese government's relations with the private sector can be summarized as one of both intermediation and mediation. Rather than directly involving itself in activities of the private sector, the Japanese Government endorsed private activities either as financial intermediary or as mediator of some kind. The latter function is

²² Bank of Japan, *Bank of Japan* (in Japanese), 1967. B. Kure modified the above statement as follows: "I personally consider that, although, with its considerable effect as a money tightening measure, window guidance is more important than either the open market operations or changes in discount rate, it is less important than the loan policy of the Bank of Japan. It should also be noted that, in the past, the window guidance measure was often taken before an increase in the discount rate but it was often taken before and increase in the discount rate but it was scarcely effective until the discount rate was raised." B. Kure, "Window Guidance of the Bank of Japan," *Japanese Economic Studies*, winter, 1977-78.

²³ As was stated previously, open market operations in Japan are not "open market" transactions, but ones conducted bilaterally between the Bank of Japan and individual commercial banks.

often termed that of interest intermediation in the political science literature.²⁴ Interest intermediation of the Japanese Government, however, has not been restricted to that of the "corporatist" type,²⁵ but very widely spread to both intra- and inter-industry levels, as well as among major interest groups organized nationally.

The widely held perception of the Japanese people that the government, as distinct from political parties, is politically neutral seems to be a strong reason behind the ubiquitous role of government as a mediator. The existence of a strong bureaucracy relatively independent from political influence has at least partially satisfied expectations of neutrality of government held by the public. The existence of relatively neutral public institutions seems to be prerequisite, at least in the Japanese cultural and historical context, for successful financial intermediation by the Government.

²⁴ P. Schmitter, "Interest Intermediation and Regime Governability: A Japanese Epilogue," paper delivered at the SSRC Conference on Japanese Interest Associations, May 1977.

²⁵ P. Schmitter, "Still the Century of Corporatism?", T.J. Pempel and K. Tsunekawa, "Corporatism Without Labor? The Japanese Anomaly," in P. Schmitter and G. Lehmbrach (ed.), *Trends Toward Corporatist Intermediation*. Sage Publications, California, 1979.

SECTION VI

SUMMARY AND CONCLUSION

This essay has focused on three major aspects of the relationship between real and financial sectors of the postwar Japanese economy; (1) high and accelerating rate of growth of GNP, (2) high and rising savings ratio, and (3) low overall government expenditure but high government savings as ratios to GNP. Both the Japanese growth rate and the savings ratio have been consistently high since the late 19th century, but the phenomenon of trend acceleration since the 1930's, and particularly after World War II until the early 1970's, is the concern of this essay. In particular, we hypothesize a casual relationship between the structure of financial intermediation and the accelerating growth of the real economy.

In reviewing the interaction of real and financial sectors in Japan, and in comparing the Japanese experience to that of the United States, four major characteristics of Japanese financial markets have been identified.

First, the financial debt of the Japanese nonfinancial sector has continuously deepened, far surpassing both its prewar mark and the U.S. postwar level. Debts of the corporate sector are particularly deep while those of government and individuals are less than their U.S. counterparts.

Second, the high degree of financial intermediation, not only by banks but by thrift institutions and public financial intermediaries, made this debt deepening possible. This second aspect is quite important, since advancement of financial intermediation can reduce transactions and information costs as well as reduce overall risk. Financial assets of Japanese savers have been accumulated mostly in the form of bank deposits, while a substantial part of American assets are held in the form of equities and bonds. Also, the proportion of assets in trade financing is much larger in Japan than in the United States, confirming the proposition that Japanese nonfinancial firms engage in extensive intermediation. Trading firms, for example, are the most notable nonfinancial credit grantors.

Third, the Japanese Government has been more a financial intermediary than a borrower or regulator. The share of public debt in total liabilities of nonfinancial sectors has remained relatively small, though a conspicuous bulge occurred in the late 1970's. In particular, the balanced budget principle contributed both to the low level of public debt and to use of postal savings funds for investments and loans.

Fourth, consumers were largely excluded from the market until the 1970's, and the proportion of mortgage and consumer loans has remained extremely small compared to the United States.

These characteristics of the financial market were important to the real sector in the following ways. Continuous deepening of debt, brought about at least in part by advancement of financial intermediation, made it possible for corporations to rely heavily on borrowed funds. Thus, corporations could simultaneously increase investment and reduce financial costs. Moreover, small amounts of outstanding government debt, along with de facto closure of markets to consumers, meant funds could go only to corporations and investment. Government, in its role as financial intermediary, helped channel funds in this direction.

And what were the major institutions underlying these important characteristics and their results? A crucial one was the relatively less restrictive regulations on commercial banking and the pervasive diversification of financial intermediaries, both of which caused intense competition. Thrift institutions and post offices, in particular, competed fiercely with commercial banks.

Long-term credit banks were another group of important institutions. These banks, all established by 1952, provided a core of loan syndications and coordination of corporate financing. Long-term credit banks such as the Industrial Bank of Japan were granted preferential access to bond markets; they then became underwriters of major corporate investments, loan syndicators, and bond underwriters, in cooperation with major commercial banks and securities houses. Participation of a long term credit bank in a loan consortium gave a de facto government guarantee to the project involved, making it possible for the private corporation in the project to socialize the risk. The system of loan consortia allowed the banking sector as a whole to assume risks which could not be borne by a small number of institutions. The system allowed the scope of investment to become both larger and more long term, overcoming the sometimes myopic perspective of stockholders.

But government involvement in financial intermediation should be clearly distinguished from government planning or control. Almost all such projects were initiated in the private sector and found profitable, except that their scope was too extensive for private concerns to bear. The Government then stepped in to socialize the risk, but primary responsibility for the projects remained in the hands of the private sector. Of course, some public financing was used as a carrot in implementing some plans initiated by government. But even then plans were not implemented without explicit consent of the private sector.

The Government was also active on the deposit side. Post offices and thrift institutions collected small denomination savings, and created an extremely competitive environment. This intense competition probably helped raise Japanese savings.

The small size of the Japanese Government meant its most significant role in the economy was that of intermediary, not regulator. For example, it is much more useful to view the Bank of Japan as a credit intermediary rather than as regulator of the money supply. The Bank of Japan focused on lending to commercial banks far more in accordance with the credit paradigm than with the money paradigm.

In short, we feel there is substantial evidence in favor of the following proposition: effective financial intermediation by both private

and public sectors in the Japanese economy was a key factor in debt deepening, and this in turn raised savings, investment and GNP growth. Of course, one cannot attribute the excellent performance of the economy to financial intermediation alone; but it is the authors' impression that interactions of intermediation, savings and growth have long been neglected. Writing in the past on financial markets has sometimes been skewed by implicit ideology, at the cost of objective assessment of structure and performance.

Finally, Japanese financial markets seem to have been undergoing a significant transformation since the early 1970's. Government debt has bulged, while consumer loan markets have become much more accessible. Liberalization of foreign exchange controls and increased flotation of government securities have made Tokyo's wholesale money and securities markets quite important. The loan market has lost some importance, since many industries are now self-sufficient.

However, Japan's financial markets remain quite distinct from those in Anglo-Saxon countries. Structural characteristics such as retail competition, effective syndication, long-term credit banks, and government financial institutions give the Japanese system some notable strengths that Anglo-Saxon counterparts lack. There is no reason whatsoever to change the basic institutions of Japanese financial markets. In a time of international tension and increasing uncertainty, such institutions provide advantages to both Japanese corporations and consumers. It is an ingenious mechanism of pooling and diversifying risks at a national level.

Of course, modifications and reformulation of government policies may indeed be in order in some areas. In particular, given sweeping financial changes currently taking place in the United States, the Japanese system has to be adjusted, and swift action by government and private sectors may be required. But while reforms are necessary to meet the demands of an increasingly interdependent world financial system, they should not be perceived as an opportunity to transform the Japanese financial system into an Anglo-Saxon clone. Japan must retain its strengths.

REFERENCES

1. E. Balstenperger, "Credit Rationing: Issues and Questions," *Journal of Money, Credit and Banking*, May 1978.
2. Bank of Japan, *Public Opinion Survey of Savings* (in Japanese), various issues.
3. ———, *Bank of Japan* (in Japanese), 1967.
4. W. Baumol, "The Transactions Demand for Cash: An Inventory Theoretic Approach," *Quarterly Journal of Economics*, November 1952.
5. R. E. Caves and M. Uekusa, "Industrial Organization," *Asia's New Giant: How the Japanese Economy Works*, Brookings Institution, 1976.
6. Department of Treasury, *Geographic Restrictions on Commercial Banking in the United States—The Report of the President*, 1981.
7. Economic Planning Agency, *White Paper on National Life* (in Japanese), 1977.
8. H. Eguchi, "Comments on Effectiveness of the Window Guidance," *Japanese Economic Studies*, winter, 1977-78.
9. B. Friedman, "Postwar Changes in the American Financial Markets," M. Feldstein (ed.), *The American Economy in Transition*, Chicago University Press, February 1981.
10. M. Friedman, *A Theory of the Consumption Function*, Princeton University, 1957.
11. H. Fukui, "Studies in Policy Making: A Review of the Literature," in T. J. Pempel (ed.), *Policymaking in Contemporary Japan*, Cornell University Press, 1977.
12. E. Hadley, *Antitrust in Japan*, Princeton University Press, 1970.
13. K. Hamada, Y. Ishiyama, and K. Iwata, "Structure of Japanese Loan Market—Loan Rates of City and Local Banks," *Keizai Bunseki* (in Japanese), Economic Planning Agency, March 1976.
14. K. Hasegawa, "Can Foreign Banks Compete With Japanese Management?" (in Japanese), *Shokun*, March 1981.
15. A. Heggstad, "Market Structure, Competition, and Performance in Financial Intermediaries: A Survey of Banking Studies," in F. R. Edward (ed.) *Issues in Financial Regulation*, McGraw-Hill, 1979.
16. A. Horiuchi, "Effectiveness of 'Lending Window Operation' as a Restrictive Monetary Policy Measure," *Japanese Economic Studies*, winter, 1977-78.
17. ———, "Decline of City Banks' Share and Its Implications" (in Japanese), Nomura Research (ed.), *Security Markets in the Eighties*, 1980.
18. I. Ishikawa and T. Gyoten (ed.), *Fiscal Investments and Loans* (in Japanese), Kinyu Zaisei Jijo Kenkyukai, 1977.
19. D. Jaffe and T. Russell, "Imperfect Information, Uncertainty and Credit Rationing," *Quarterly Journal of Economics*, November 1976.
20. C. Johnson, *Japan's Public Policy Companies*, American Enterprise Institute, Washington, D.C., 1978.
21. E. Kaplan, *Japan—The Government and Business Relationship*, U.S. Department of Commerce, February 1972.
22. R. Komiya, "The Supply of Personal Savings," in R. Komiya (ed.), *Post-war Economic Growth in Japan*, University of California Press, 1968.
23. ———, "Effectiveness of Japanese Monetary Policy," in R. Komiya, *Analysis of Contemporary Japanese Economy* (in Japanese), Tokyo University Press, 1975.
24. I. Kuroda, "On the Determination of Japanese Loan Rate—Re-examination of the Conventional View and a New Perspective" (in Japanese) *Kinyu Kenkyu Shiryo 2*, Bank of Japan, 1979.
25. ———, "About Japanese Financial Structure" (in Japanese), Nomura Research (ed.), *Security Markets in Nineteen Eighties*, 1980.
26. I. Kuroda and Y. Oritani, "Re-examination of 'Peculiarities' Of Japanese Financial Structure—Comparison of Balance Sheets of U.S. Versus Japanese Corporations" (in Japanese), *Kinyu Kenkyu Shiryo 2*, Bank of Japan, April 1979.

27. B. Kure, *Monetary Policy* (in Japanese), Tokyo-Keizai Shimpō-Sha, Tokyo, 1973.
28. ———, "Window Guidance of the Bank of Japan," *Japanese Economic Studies*, winter, 1977-78.
29. J. O. Light and W. L. White, *The Financial System*, Richard D. Irwin, Inc., 1979.
30. E. Lincoln, "Keiretsu", *Council Report*, No. 61., U.S.-Japan Trade Council, Oct. 30, 1980.
31. E. Martin, *The Allied Occupation of Japan*, Stanford University Press, 1948.
32. F. Modigliani, "The Life Cycle Hypothesis of Saving, Demand for Wealth and the Supply of Capital," *Social Research*, vol. 33, No. 2, 1966.
33. ———, "Monetary Mechanism Revisited and Its Relations With the Financial Structure" (mimeo), November 1980.
34. OECD, *The Industrial Policy of Japan*, Paris, 1972.
35. ———, *The Role of Monetary Policy in Demand Management, the Experience of Six Major Countries*, 1975.
36. K. Ohkawa and H. Rosovsky, *Japanese Economic Growth: Trend Acceleration in the Twentieth Century*, Stanford University Press, 1973.
37. H. Patrick, "Evolution of the Japanese Financial System During Interwar Period" (in Japanese), T. Nakamura (ed.) *Analysis of the Japanese Economy During the Interwar Period*, February 1981.
38. H. Patrick and H. Rosovsky (ed.), *Asia's New Giant: How the Japanese Economy Works*, Brookings Institution, 1976.
39. T. J. Pempel and K. Tsunekawa, "Corporatism Without Labor? The Japanese Anomaly," in P. Schmitter and G. Lehmbrach (ed.), *Trends Toward Corporatist Intermediation*, Sage Publications, California, 1979.
40. A. Rhoades, "Structure-Performance Studies in Banking: A Summary and Evaluation," Board of Governors of the Federal Reserve System, Staff Economic Studies, No. 92, 1977.
41. S. Rohyama, "Japanese Supply of Money and Monetary Policy" (in Japanese), in K. Kaizuka, (ed.), *Monetary Policy*, Nihon Keizai Shimbun Sha, 1972.
42. E. Sakakibara, "A Simple Macroeconomic Model With Financial Intermediation" (mimeo), May 1981.
43. T. J. Sargent and N. Wallace, "The Real Bills Doctrine Versus The Quantity Theory," Staff Report No. 14, University of Minnesota and Federal Reserve Bank of Minneapolis, January 1981.
44. P. C. Schmitter, "Interest Intermediation and Regime Governability: A Japanese Epilogue," paper delivered at the SSRC Conference on Japanese Interest Associations, May 1977.
45. ———, "Still the Century of Corporatism," P. C. Schmitter and G. Lehmbrach (ed.), *Trends Toward Corporatist Intermediation*, Sage Publication, California, 1979.
46. K. Simura, *Analysis of the Japanese Capital Market* (in Japanese), Tokyo University Press, 1969.
47. Y. Suzuki, *Money and Banking in Contemporary Japan*, Yale University Press, 1980.
48. J. Tobin, "The Interest Elasticity of Transactions Demand for Cash," *Review of Economics and Statistics*, August 1956.
49. P. Trezise, "Politics, Government and Economic Growth in Japan," in H. Patrick and H. Rosovsky (ed.), *Asia's New Giant: How the Japanese Economy Works*, Brookings Institution, 1976.
50. E. Vogel, "Guided Free Enterprise in Japan," *Harvard Business Review*, May-June 1978.
51. H. Wallich and M. Wallich, "Banking and Finance," in H. Patrick and H. Rosovsky (ed.), *Asia's New Giant: How the Japanese Economy Works*, Brookings Institution, 1976.
52. O. Williamson, *Markets and Hierarchies: Analysis and Antitrust Implications*, The Free Press, 1975.
53. K. Yoshihara, "The Growth Rate as a Determinant of Savings Ratio," *Hitotsubashi Journal of Economics*, February 1972.
54. T. Yoshino, *Japanese Financial Institutions and Policies* (in Japanese), Shisei-do, 1954.
55. A. Young, *The Sogo Shosha: Japan's Multinational Trading Companies*, Westview Press, Inc., 1979.

APPENDIX ¹

MAIN BANKING REGULATIONS, COMPARISON OF THE UNITED STATES AND JAPAN

	Japan	United States
1. Entry controls:		
(1) Charters.....	Approval of the Minister of Finance is required. No charter for a new commercial bank has been granted since 1954, except in cases of merger or conversion from other forms of financial institutions.	Approval of the regulatory authorities (for national banks: the Comptroller of the Currency) is required. For State banks: the State bank regulatory agency. If it seeks the membership of the Federal Reserve (the Fed), its charter is also subject to the Fed's approval. If it does not seek Fed membership but wants to be insured by FDIC, its charter is subject to FDIC approval.
(2) Branches.....	Approval of the Minister of Finance is required. Every other year, MOF approves establishment of new branches within the limit of a certain number which is announced by MOF to be applied to all banks. (Usually the number is 1 or 2 branches per year per bank.)	Approval of the regulatory authorities is required. (1) Unit banking States: Colorado, Illinois, Kansas, Minnesota, Missouri, Montana, Nebraska, North Dakota, Oklahoma, Texas, West Virginia, Wyoming. Branches are prohibited. (See footnote 13, sec. IV, of the text.) (2) Statewide branching States: Alaska, Arizona, California, Connecticut, Delaware, Hawaii, Idaho, Maryland, Nevada, North Carolina, Oregon, Rhode Island, South Carolina, Utah, Vermont, Washington. Branches are permitted within a State's borders. (3) Limited branching States: Alabama, District of Columbia, Georgia, Indiana, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Mississippi, New Jersey, New Mexico, New York, Ohio, Pennsylvania, Tennessee, Virginia, Wisconsin. Branches are geographically limited to the city or county in which the head office is located, the adjoining counties, or an area within a certain distance from the head office.
2. Portfolio regulations:		
(1) Loans:		
(a) Limit on single borrower... 20 percent of capital and surplus funds.		National banks: 10 percent of capital and surplus funds. (Due to various exemptions—e.g., most of the financing of foreign trade and the indirect financing of consumer goods are exempt—the 10 percent rule's restrictive effects are reduced substantially.) State banks: The percentage varies from State to State (10 to 35 percent).
(b) Regulations on loans to affiliates and bank holding companies.	No particular regulations exist.....	The securities pledged for loans to affiliates or bank holding companies must have a market value of at least 20 percent (in the case of government securities, the margin may be less) more than the amount of credit extended.

See footnotes at end of table.

MAIN BANKING REGULATIONS, COMPARISON OF THE UNITED STATES AND JAPAN—Continued

	Japan	United States
(c) Regulations on real estate loans.	Banks are requested by MOF to expand housing loans to individuals. No other particular regulation exists.....	The amount of loans secured by real estate may not exceed a certain proportion of the appraised value of the real estate: 66.5 percent if the real estate is not improved; 75 percent if the real estate is improved by offsite improvements, or if the real estate is in the process of being improved by buildings; 90 percent if the real estate is improved by buildings. There is no limitation if the loan is insured by the Federal Housing Administration or guaranteed by the Veterans' Administration. The aggregate amount of real estate loans may not exceed the bank's capital and surplus funds. The aggregate amount of loans secured by other than 1st liens may not exceed 20 percent of the bank's capital and surplus funds.
(d) Limit on loans for securities purchase.	No particular regulations exist besides general guidance by MOF to restrain loans that are related to speculative activities.	The amount that a bank can loan to purchase or hold securities is regulated by the Fed.
(e) Loans-to-deposits ratio.....	MOF advises that the loans-to-deposit ratio be not more than 80 percent.	The adequacy of loan behavior is assessed in the general framework of bank examinations of supervisory authorities. Banks are prohibited from investing in equity securities. There are minor exceptions.
(2) Investments.....	Banks may invest in equity securities if a bank's holding does not exceed 5 percent of the invested company's stock. If a bank wants to invest in more than 5 percent of a company's stock, approval of the Fair Trade Commission is required.	Minor exceptions: Banks may invest an amount no more than 10 percent of capital and surplus funds in a foreign banking corporation with Fed's permission. With various limitations, banks may own stock in small business investment companies, agricultural credit corporations, and banking service corporations. Except for obligations of the United States, general obligations of local governments, and obligations of public corporations specified by the statute, the amount held of securities issued by one obligor may not exceed 10 percent of the bank's capital and surplus funds.
3. Capital and liquidity adequacy regulations.		
(1) Capital requirements.....	¥1,000,000. (For banks whose main offices are in Tokyo or Osaka, \$2,000,000.)	Depending on the population of the town where it is located: \$50,000 to \$200,000; \$200,000 (in a city of over 50,000). Paid-in surplus equal to 20 percent of its capital.
(2) Capital ratio.....	The MOF advises that the ratio of capital funds (including reserves) to total deposits be no less than 10 percent. (The average ratio of all commercial banks in 1980 was 5 percent).	The supervisory agencies officially state that they determine capital adequacy in examining banks on the basis of broad considerations (including the quality of management and the liquidity of assets, etc.) and that they do not rely on a certain ratio as a rule of thumb. But it was reported in 1972 that: a loans-to-capital ratio not exceeding 7.5 times (or capital-to-loans ratio over 13.83 percent); a deposits-to-capital ratio not exceeding 11 times (a capital-to-deposits ratio over 9.09 percent); are used by regulatory agencies for a standard to determine capital adequacy.
(3) Liquidity.....	Ratio of liquid assets, (cash, deposits, call market loans, and securities) to total assets is advised by MOF to be more than 30 percent.	Whether a bank has enough liquidity in its portfolio or not is assessed by supervisory authorities through examination.
(4) Dividend control.....	Ratio of dividends to the face value of equity is requested to be not more than 15 percent. (For all commercial banks, the ratio is 10 percent.)	No regulations exist besides the assessment of dividends policy of a bank by supervisory authorities through examination.

See footnotes at end of table.

MAIN BANKING REGULATIONS, COMPARISON OF THE UNITED STATES AND JAPAN—Continued

	Japan	United States
4. Deposits rates regulations.....	BOJ sets the ceilings on interest rates for demand deposits (no interest); time deposits; deposits for tax payments; other deposits. Foreign currency deposits (since 1974) and CD's (since 1979) are exempt from the ceiling. BOJ issues more detailed guidelines for all kinds of deposits and banks follow the guidelines.	Fed sets the ceilings on time and savings deposits rates. Interest payment on demand deposits is prohibited by law. (See notes of Table XIV.) CD's (since 1973) and money market certificates (since 1978) are exempt from the ceiling. These regulations will be phased out by 1986.
5. Regulations on activities.....	Banks may perform only banking business and activities incidental thereto. Leasing is not permitted..... Insurance business is not permitted..... Securities business is prohibited except for government securities. Related activities (as leasing) are permitted for bank affiliates.	In general principle there is no difference from the Japanese case. Leasing is permitted. Insurance business is not permitted with certain exceptions in acting as an insurance agent in small towns. Securities business is prohibited except for Federal Government securities and general obligations of State and local governments. Bank holding companies are allowed to perform activities closely related to banking subject to Fed's approval. The scope of activities permitted is broader than those banks are allowed to perform.
6. Consumer protection:		
(1) Disclosure for borrowers.....	Interest on consumer credits is requested to be expressed as an annual rate instead of add-on method.	In a copy given to a borrower of consumer loans, certain information must be presented in a standard manner by all lenders. E.g., interest expressed as an annual rate, all charges made in connection with the extension of the credit. Advertisements must state clearly, accurately and conspicuously all promotional materials.
(2) Prohibition of discrimination.....	No particular regulation exists.....	Discrimination on the basis of sex, marital status, age, race, color, religion, national origin, or receipt of public assistance benefits is prohibited in any aspect of a credit transaction.
7. Investor protection:		
(1) Stockholder disclosure.....	Banks must submit securities reports to MOF regularly to disclose their business and financial conditions along with other corporations.	Banks and banks holding companies must submit securities reports to SEC regularly. They are required to disclose more detailed information than Japanese banks.
(2) Insider loans.....	No particular regulations exist besides general prohibition of breach of trust according to the Commercial Code and the Criminal Code.	A bank may not make loans exceeding a certain amount to its own executive officers: mortgage loans \$30,000; educational loans \$10,000; general loans \$5,000.
(3) Loans secured by own stock.....	No particular regulation exists.....	Banks are prohibited from making loans secured by their own stock. However, national banks are permitted to make loans secured by the bank's own stock in cases where it is necessary to prevent loss on a debt previously contracted in good faith. If such a loan is made and defaulted, the stock must be sold at public or private sale within 6 months.

¹ This appendix owes much to the following references:

- (1) Edwards, F. R. (ed.), "Issues in Financial Regulation," McGraw-Hill, Inc., 1979.
- (2) Farwell, L. C., Jacobs, D. P., Neave, E. H., "Financial Institutions," Richard D. Irwin, Inc., 1972.
- (3) Guenther, H., "Banking in the United States," The Bank Research Unit, 1979.
- (4) Hackley, H., "Our Baffling Banking System," Virginia Law Review, vol. 52 (1966), pp. 565 and 771.
- (5) Reed, E. W., Cotter, R. V., Gill, E. K., Smith, R. K., "Commercial Banking," 2d ed., Prentice-Hall, Inc., 1980.
- (6) White, J. J., "Statutory Supplement to Teaching Materials on Banking Law," West Publishing Co., 1976.
- (7) Adachi, K., "Bank Administration of Today," National Local Bankers Association, 1980 (in Japanese).
- (8) Federation of Bankers Associations of Japan, "Banking System in Japan," The Federation of Bankers Associations of Japan, 1979.
- (9) Ministry of Finance, "Banking Business Handbook," 1980 (in Japanese).